

FIGURE 1

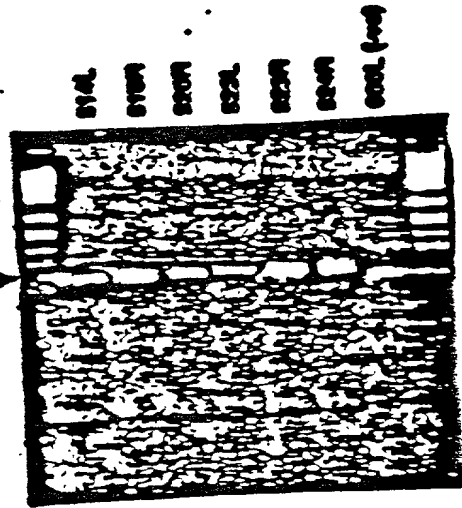


Figure 2

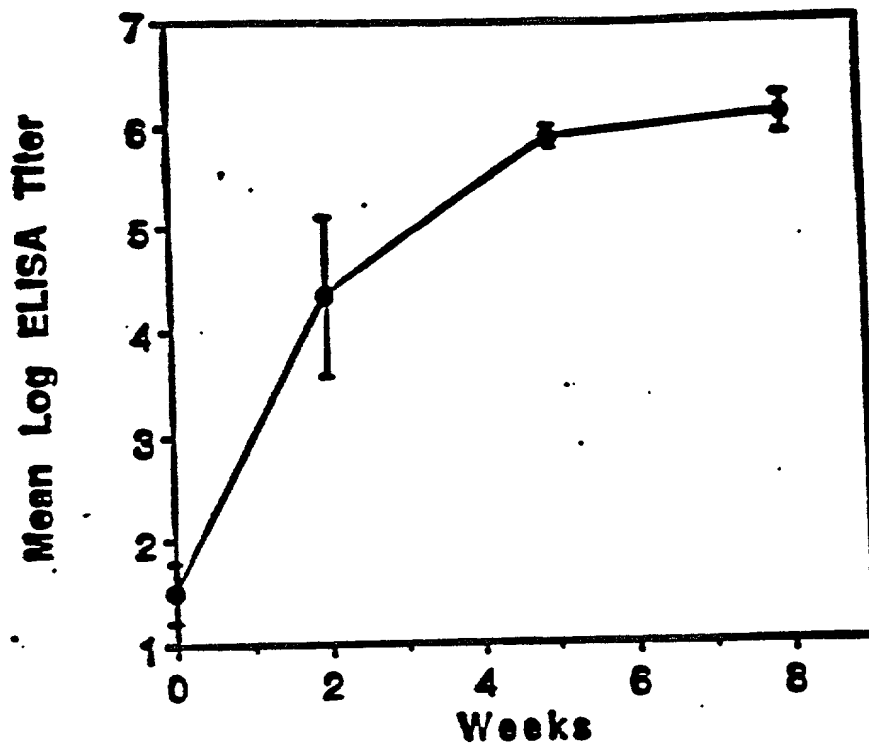


Figure 3

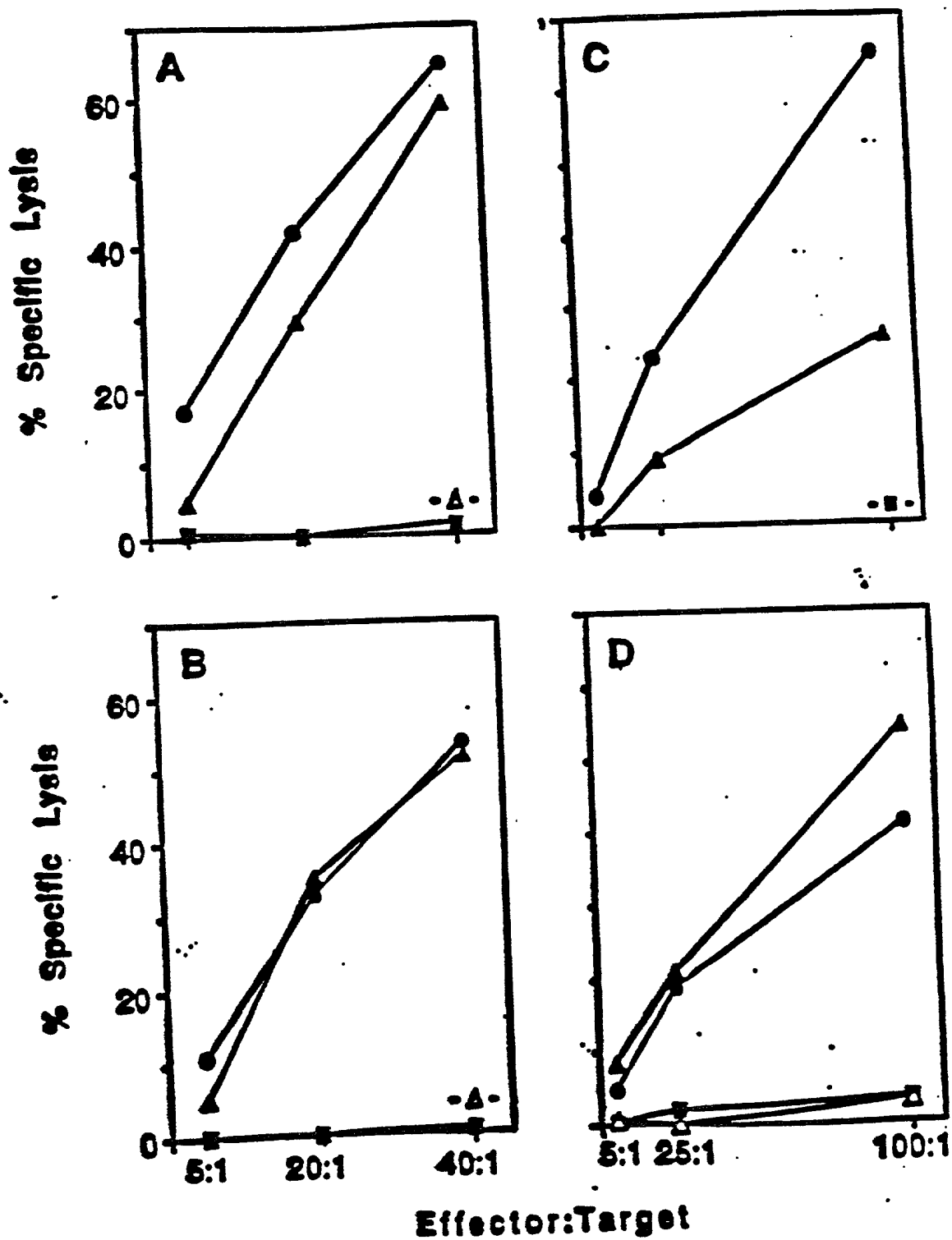


Figure 4

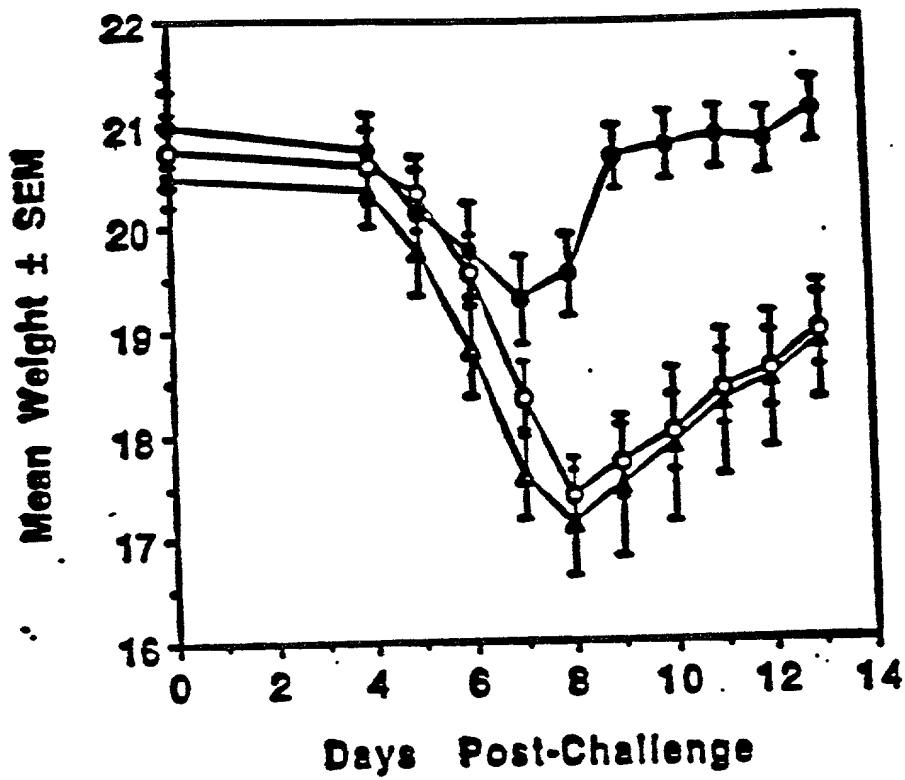


Figure 5

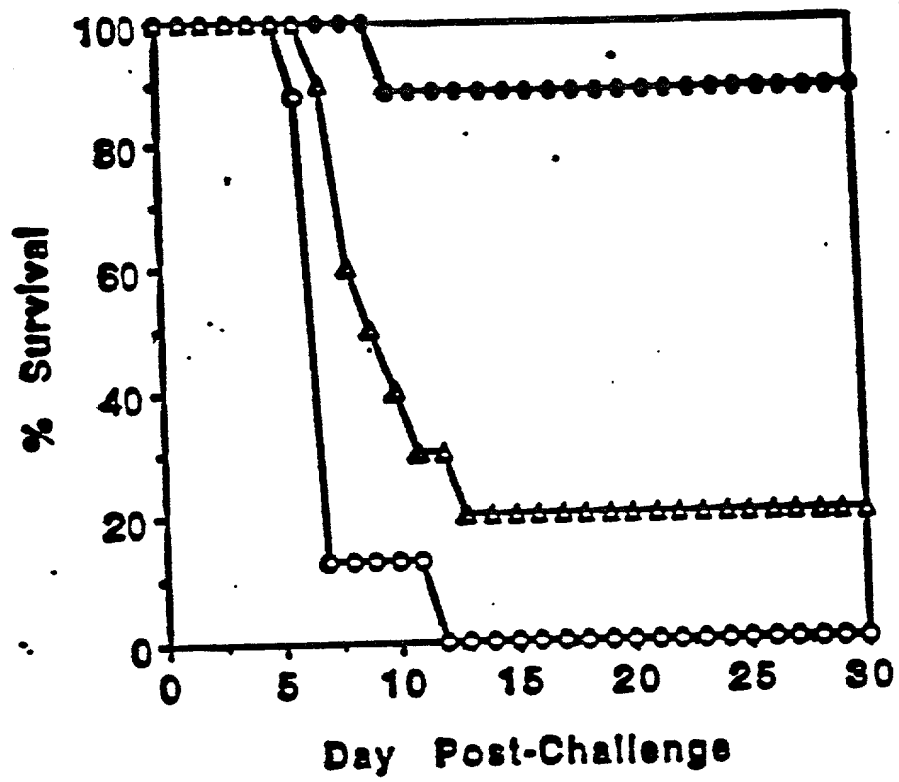


Figure 6: V11.Sequence, SEQ. ID:10:

1 TCGCGCGTTT CGGTGATGAC GGTGAAAACC TCTGACACAT GCAGCTCCCG
51 GAGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA GACAAGCCCC
101 TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG
151 CGGCATCAGA GCAGATTGTA CTGAGAGTGC ACCATATGCG GTGTGAAATA
201 CCGCACAGAT GCGTAAGGAG AAAATACCGC ATCAGATTGG CTATTGGCCA
251 TTGCATACGT TGTATCCATA TCATAATATG TACATTTATA TTGGCTCATG
301 TCCAACATTA CCGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGGTCATTA GTTCATAGCC CATATATGGA GTTCCGCGTT
401 ACATAACTTA CGGTAAATGG CCCGCCTGGC TGACCGCCCA ACGACCCCCG
451 CCCATTGACG TCAATAATGA CGTATGTTCC CATAGTAACG CCAATAGGGA
501 CTTTCCATTG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCACTTG
551 GCAGTACATC AAGTGTATCA TATGCCAAGT ACGCCCCCTA TTGACGTCAA
601 TGACGGTAAA TGGCCCGCCT GGCATTATGC CCAGTACATG ACCTTATGGG
651 ACTTTCCTAC TTGGCAGTAC ATCTACGTAT TAGTCATCGC TATTACCATG
701 GTGATGCGGT TTTGGCAGTA CATCAATGGG CGTGGATAGC GGTTTGACTC
751 ACGGGGATTT CCAAGTCTCC ACCCCATTGA CGTCAATGGG AGTTTGTTTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAAT GTCGTAACAA CTCCGCCCCA
851 TTGACGCAAA TGGGCGGTAG GCGGTACGG TGGGAGGTCT ATATAAGCAG
901 AGCTCGTTTA GTGAACCGTC AGATCGCCTG GAGACGCCAT CCACGCTGTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGCCGGGAA
1001 CCGTGCAATTG GAACGCGGAT TCCCGTGCC AAGAGTGACG TAAGTACCGC
1051 CTATAGAGTC TATAGGCCCA CCCCCTTGGC TTCTTATGCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCGCT TCCTCATGTT ATAGGTGATG
1151 GTATAGCTTA GCCTATAGGT GTGGGTATT GACCATTATT GACCACTCCC
1201 CTATTGGTGA CGATACTTTC CATTACTAAT CCATAACATG GCTCTTTGCC

Figure 6 (continued, p2/4)

1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCTT CAGAGACTGA
1301 CACGGACTCT GTATTTTAC AGGATGGGGT CTCATTTATT ATTTACAAAT
1351 TCACATATAC AACACCACCG TCCCCAGTGC CCGCAGTTTT TATTAAACAT
1401 AACGTGGGAT CTCCACGCGA ATCTCGGGTA CGTGTTCGGG ACATGGGCTC
1451 TTCTCCGGTA GCGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCTC
1501 CAGCGACTCA TGGTCGCTCG GCAGCTCCTT GCTCCTAACA GTGGAGGCCA
1551 GACTTAGGCA CAGCACGATG CCCACCACCA CCAGTGTGCC GCACAAGGCC
1601 GTGGCGGTAG GGTATGTGTC TGAAAATGAG CTCGGGGAGC GGGCTTGAC
1651 CGCTGACGCA TTTGGAAGAC TTAAGGCAGC GGCAGAAGAA GATGCAGGCA
1701 GCTGAGTTGT TGTGTTCTGA TAAGAGTCAG AGGTAAGTCC CGTTGCGGTG
1751 CTGTTAACGG TGGAGGGCAG TGTAAGTCTGA GCAGTACTCG TTGCTGCCGC
1801 GCGCGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCCTTTCCA
1851 TGGGTCTTTT CTGCAGTCAC CGTCCTTAG ATCTGCTGTG CCTTCTAGTT
1901 GCCAGCCATC TGTTGTTTGC CCCTCCCCCG TGCCTTCCTT GACCCTGGAA
1951 GGTGCCACTC CCACTGTCCT TTCCTAATAA AATGAGGAAA TTGCATCGCA
2001 TTGTCTGAGT AGGTGTCATT CTATTCTGGG GGGTGGGGTG GGGCAGCACA
2051 GCAAGGGGGA GGATTGGGAA GACAATAGCA GGCATGCTGG GGATGCGGTG
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2251 GCTCCGCCTT CAATCCCACC CGCTAAAGTA CTTGGAGCGG TCTCTCCTC
2301 CCTCATCAGC CCACCAAACC AAACCTAGCC TCCAAGAGTG GGAAGAAATT
2351 AAAGCAAGAT AGGCTATTAA GTGCAGAGGG AGAGAAAATG CCTCCAACAT
2401 GTGAGGAAGT AATGAGAGAA ATCATAGAAT TTCTTCCGCT TCCTCGCTCA
2451 CTGACTCGCT GCGCTCGGTC GTTCGGCTGC GGCGAGCGGT ATCAGCTCAC

Figure 6 (continued, p3/4)

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2601 CGTTGCTGGC GTTTTTCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
2651 AATCGACGCT CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAAGATA
2701 CCAGGCGTTT CCCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC
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3051 GAAGGACAGT ATTTGGTATC TGCGCTCTGC TGAAGCCAGT TACCTTCGGA
3101 AAAAGAGTTG GTAGCTCTTG ATCCGGCAAA CAAACCACCG CTGGTAGCGG
3151 TGGTTTTTTT GTTTGCAAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC
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3401 ATCTCAGCGA TCTGTCTATT TCGTTCATCC ATAGTTGCCT GACTCCCCGT
3451 CGTGTAGATA ACTACGATAC GGGAGGGCTT ACCATCTGGC CCCAGTGCTG
3501 CAATGATACC GCGAGACCCA CGCTCACCGG CTCCAGATTT ATCAGCAATA
3551 AACCAGCCAG CCGGAAGGGC CGAGCGCAGA AGTGGTCCTG CAACTTTATC
3601 CGCCTCCATC CAGTCTATTA ATTGTTGCCG GGAAGCTAGA GTAAGTAGTT
3651 CGCCAGTTAA TAGTTTGCGC AACGTTGTTG CCATTGCTAC AGGCATCGTG
3701 GTGTCACGCT CGTCGTTTGG TATGGCTTCA TTCAGCTCCG GTTCCCAACG

Figure 6 (continued, p4/4)

3751 ATCAAGGCGA GTTACATGAT CCCCCATGTT GTGCAAAAAA GCGGTTAGCT
3801 CCTTCGGTCC TCCGATCGTT GTCAGAAGTA AGTTGGCCGC AGTGTTATCA
3851 CTCATGGTTA TGGCAGCACT GCATAATTCT CTTACTGTCA TGCCATCCGT
3901 AAGATGCTTT TCTGTGACTG GTGAGTACTC AACCAAGTCA TTCTGAGAAT
3951 AGTGTATGCG GCGACCGAGT TGCTCTTGCC CGGCGTCAAT ACGGGATAAT
4001 ACCGCGCCAC ATAGCAGAAC TTTAAAAGTG CTCATCATTG GAAAACGTTC
4051 TTCGGGGCGA AAACCTCTCA GGATCTTACC GCTGTTGAGA TCCAGTTCGA
4101 TGTAACCCAC TCGTGCACCC AACTGATCTT CAGCATCTTT TACTTTCACC
4151 AGCGTTTCTG GGTGAGCAAA AACAGGAAGG CAAAATGCCG CAAAAAAGGG
4201 AATAAGGGCG ACACGGAAAT GTTGAATACT CATACTCTTC CTTTTTCAAT
4251 ATTATTGAAG CATTTATCAG GGTTATTGTC TCATGAGCGG ATACATATTT
4301 GAATGTATTT AGAAAAATAA ACAAATAGGG GTTCCGCGCA CATTCCCCCG
4351 AAAAGTGCCA CCTGACGTCT AAGAAACCAT TATTATCATG ACATTAACCT
4401 ATAAAAATAG GCGTATCACG AGGCCCTTTC GTC

Figure 7: V1Jneo Sequence, SEQ. ID:18:

1 TCGCGCGTTT CGGTGATGAC GGTGAAAACC TCTGACACAT GCAGCTCCCG
51 GAGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA GACAAGCCCCG
101 TCAGGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG
151 CGGCATCAGA GCAGATTGTA CTGAGAGTGC ACCATATGCG GTGTGAAATA
201 CCGCACAGAT GCGTAAGGAG AAAATACCGC ATCAGATTGG CTATTGGCCA
251 TTGCATACGT TGTATCCATA TCATAATATG TACATTTATA TTGGCTCATG
301 TCCAACATTA CCGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGGTCATTA GTTCATAGCC CATATATGGA GTTCCGCGTT
401 ACATAACTTA CGGTAAATGG CCCGCCTGGC TGACCGCCCA ACGACCCCCG
451 CCCATTGACG TCAATAATGA CGTATGTTCC CATAGTAACG CCAATAGGGA
501 CTTTCCATTG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCCATTG
551 GCAGTACATC AAGTGTATCA TATGCCAAGT ACGCCCCCTA TTGACGTCAA
601 TGACGGTAAA TGGCCCGCCT GGCATTATGC CCAGTACATG ACCTTATGGG
651 ACTTTCCTAC TTGGCAGTAC ATCTACGTAT TAGTCATCGC TATTACCATG
701 GTGATGCGGT TTTGGCAGTA CATCAATGGG CGTGGATAGC GGTTTGACTC
751 ACGGGGATTT CCAAGTCTCC ACCCCATTGA CGTCAATGGG AGTTTGTTTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAAT GTCGTAACAA CTCCGCCCCA
851 TTGACGCAAA TGGGCGGTAG GCGTGACGG TGGGAGGTCT ATATAAGCAG
901 AGCTCGTTTA GTGAACCGTC AGATCGCCTG GAGACGCCAT CCACGCTGTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGCCGGGAA
1001 CGGTGCAATTG GAACGCGGAT TCCCCGTGCC AAGAGTGACG TAAGTACCGC
1051 CTATAGAGTC TATAGGCCCA CCCCCTTGGC TTCTTATGCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCCGCT TCCTCATGTT ATAGGTGATG
1151 GTATAGCTTA GCCTATAGGT GTGGGTTATT GACCATTATT GACCACTCCC

Figure 7 (continued, p2/4)

1201 CTATTGGTGA CGATACTTTC CATTACTAAT CCATAACATG GCTCTTTGCC
 1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCTT CAGAGACTGA
 1301 CACGGACTCT GTATTTTAC AGGATGGGGT CTCATTTATT ATTTACAAAT
 1351 TCACATATAC AACACCACCG TCCCCAGTGC CCGCAGTTTT TATTAAACAT
 1401 AACGTGGGAT CTCCACGCGA ATCTCGGGTA CGTGTTCGGG ACATGGGCTC
 1451 TTCTCCGGTA GCGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCCTC
 1501 CAGCGACTCA TGGTCGCTCG GCAGCTCCTT GCTCCTAACA GTGGAGGCCA
 1551 GACTTAGGCA CAGCACGATG CCCACCACCA CCAGTGTGCC GCACAAGGCC
 1601 GTGGCGGTAG GGTATGTGTC TGAAAATGAG CTCGGGGAGC GGGCTTGAC
 1651 CGCTGACGCA TTTGGAAGAC TTAAGGCAGC GGCAGAAGAA GATGCAGGCA
 1701 GCTGAGTTGT TGTGTTCTGA TAAGAGTCAG AGGTA ACTCC CGTTGCGGTG
 1751 CTGTTAACGG TGGAGGGCAG TGTAGTCTGA GCAGTACTCG TTGCTGCCCG
 1801 GCGCGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCCTTTCCA
 1851 TGGGTCTTTT CTGCAGTCAC CGTCCTTAG ATCTGCTGTG CCTTCTAGTT
 1901 GCCAGCCATC TGTGTTTGC CCCTCCCCCG TGCTTCCTT GACCCTGGAA
 1951 GGTGCCACTC CCACTGTCCT TTCCTAATAA AATGAGGAAA TTGCATCGCA
 2001 TTGTCTGAGT AGGTGTCATT CTATTCTGGG GGGTGGGGTG GGGCAGCACA
 2051 GCAAGGGGGA GGATTGGGAA GACAATAGCA GGCATGCTGG GGATGCGGTG
 2101 GGCTCTATGG GTACCCAGGT GCTGAAGAAT TGACCCGGTT CCTCCTGGGC
 2151 CAGAAAGAAG CAGGCACATC CCCTTCTCTG TGACACACCC TGTCCACGCC
 2201 CCTGGTTCTT AGTTCCAGCC CCACTCATAG GACACTCATA GCTCAGGAGG
 2251 GCTCCGCCTT CAATCCCACC CGCTAAAGTA CTTGGAGCGG TCTCTCCCTC
 2301 CCTCATCAGC CCACCAAACC AAACCTAGCC TCCAAGAGTG GGAAGAAATT
 2351 AAAGCAAGAT AGGCTATTAA GTGCAGAGGG AGAGAAAATG CCTCCAACAT
 2401 GTGAGGAAGT AATGAGAGAA ATCATAGAAT TTCTCCGCT TCCTCGCTCA

Figure 7 (continued, p3/4)

2451 CTGACTCGCT GCGCTCGGTC GTTCGGCTGC GGCGAGCGGT ATCAGCTCAC
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2551 GAACATGTGA GCAAAAGGCC AGCAAAAGGC CAGGAACCGT AAAAAGGCCG
2601 CGTTGCTGGC GTTTTTCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
2651 AATCGACGCT CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAGATA
2701 CCAGGCGTTT CCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC
2751 TGCCGCTTAC CGGATACCTG TCCGCCTTTC TCCCTTCGGG AAGCGTGGCG
2801 CTTTCTCAAT GCTCACGCTG TAGGTATCTC AGTTCGGTGT AGGTCGTTCC
2851 CTCCAAGCTG GGCTGTGTGC ACGAACCCCC CGTTCAGCCC GACCGCTGCG
2901 CCTTATCCGG TAACTATCGT CTTGAGTCCA ACCCGGTAAG ACACGACTTA
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3251 AACTCACGTT AAGGGATTTT GGTCA TGAGA TTATCAAAAA GGATCTTCAC
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3351 ATGAGTAAAC TTGGTCTGAC AGTTACCAAT GCTTAATCAG TGAGGCACCT
3401 ATCTCAGCGA TCTGTCTATT TCGTTCATCC ATAGTTGCCT GACTCCGGGG
3451 GGGGGGGGCG CTGAGGTCTG CCTCGTGAAG AAGGTGTTGC TGA CTCATAC
3501 CAGGCCTGAA TCGCCCCATC ATCCAGCCAG AAAGTGAGGG AGCCACGGTT
3551 GATGAGAGCT TTGTTGTAGG TGGACCAGTT GGTGATTTTG AACTTTTGCT
3601 TTGCCACGGA ACGGTCTGCG TTGTCGGGAA GATGCGTGAT CTGATCCTTC
3651 AACTCAGCAA AAGTTCGATT TATTCAACAA AGCCGCCGTC CCGTCAAGTC

Figure 7 (continued, p4/4)

3701 AGCGTAATGC TCTGCCAGTG TTACAACCAA TTAACCAATT CTGATTAGAA
3751 AAATCATCG AGCATCAAAT GAAACTGCAA TTTATTCATA TCAGGATTAT
3801 CAATACCATA TTTTGGAAAA AGCCGTTTCT GTAATGAAGG AGAAAACTCA
3851 CCGAGGCAGT TCCATAGGAT GGCAAGATCC TGGTATCGGT CTGCGATTCC
3901 GACTCGTCCA ACATCAATAC AACCTATTAA TTTCCCTCG TCAAAAATAA
3951 GGTATCAAG TGAGAAATCA CCATGAGTGA CGACTGAATC CGGTGAGAAT
4001 GGCAAAGCT TATGCATTTT TTTCCAGACT TGTTCACAG GCCAGCCATT
4051 ACGCTCGTCA TCAAAATCAC TCGCATCAAC CAAACCGTTA TTCATTCGTG
4101 ATTGCGCTG AGCGAGACGA AATACGCGAT CGCTGTAAA AGGACAATTA
4151 CAAACAGGAA TCGAATGCAA CCGGCGCAGG AACACTGCCA GCGCATCAAC
4201 AATATTTTCA CCTGAATCAG GATATTCTT TAATACCTGG AATGCTGTTT
4251 TCCCGGGGAT CGCAGTGGTG AGTAACCATG CATCATCAGG AGTACGGATA
4301 AAATGCTTGA TGGTCGGAAG AGGCATAAAT TCCGTCAGCC AGTTTAGTCT
4351 GACCATCTCA TCTGTAACAT CATTGGCAAC GCTACCTTTG CCATGTTTCA
4401 GAAACAACTC TGGCGCATCG GGCTTCCCAT ACAATCGATA GATTGTCGCA
4451 CCTGATTGCC CGACATTATC GCGAGCCCAT TTATACCCAT ATAAATCAGC
4501 ATCCATGTTG GAATTTAATC GCGGCCTCGA GCAAGACGTT TCCCGTTGAA
4551 TATGGCTCAT AACACCCCTT GTATTACTGT TTATGTAAGC AGACAGTTTT
4601 ATTGTTTATG ATGATATATT TTTATCTTGT GCAATGTAAC ATCAGAGATT
4651 TTGAGACACA ACGTGGCTTT CCCCCCCCCC CCATTATTGA AGCATTTATC
4701 AGGGTTATTG TCTCATGAGC GGATACATAT TTGAATGTAT TTAGAAAAAT
4751 AAACAAATAG GGGTTCCGCG CACATTTCCC CGAAAAGTGC CACCTGACGT
4801 CTAAGAAACC ATTATTATCA TGACATTAAC CTATAAAAAT AGGCGTATCA
4851 CGAGGCCCTT TCGTC

Figure 8: CMVintaBGH Sequence, SEQ. ID:11:

1 ATTGGCTATT GGCCATTGCA TACGTTGTAT CCATATCATA ATATGTACAT
 51 TTATATTGGC TCATGTCCAA CATTACCGCC ATGTTGACAT TGATTATTGA
 101 CTAGTTATTA ATAGTAATCA ATTACGGGGT CATTAGTTCA TAGCCCATAT
 151 ATGGAGTTCC GCGTTACATA ACTTAOGGTA AATGGCCCCG CTGGCTGACC
 201 GCCCAACGAC CCCC GCCCAT TGACGTCAAT AATGACGTAT GTTCCCATAG
 251 TAACGCCAAT AGGGACTTTC CATTGACGTC AATGGGTGGA GTATTACGG
 301 TAAACTGCCC ACTTGGCAGT ACATCAAGTG TATCATATGC CAAGTACGCC
 351 CCTATTGAC GTCAATGACG GTAAATGGCC CGCCTGGCAT TATGCCAGT
 401 ACATGACCTT ATGGGACTTT CCTACTTGGC AGTACATCTA CGTATTAGTC
 451 ATCGCTATTA CCATGGTGAT GCGGTTTTGG CAGTACATCA ATGGGCGTGG
 501 ATAGCGGTTT GACTCACGGG GATTTCCAAG TCTCCACCCC ATTGACGTCA
 551 ATGGGAGTTT GTTTTGGCAC CAAAATCAAC GGGACTTTCC AAAATGTGCT
 601 AACAACTCCG CCCCATTGAC GCAAATGGGC GGTAGGCGTG TACGGTGGGA
 651 GGTCTATATA AGCAGAGCTC GTTTAGTGAA CCGTCAGATC GCCTGGAGAC
 701 GCCATCCACG CTGTTTTGAC CTCCATAGAA GACACCGGGA CCGATCCAGC
 751 CTCCGCGGCC GGAACGGTG CATTGGAACG CGGATTCCCC GTGCCAAGAG
 801 TGACGTAAGT ACCGCCTATA GAGTCTATAG GCCCACCCCC TTGGCTTCTT
 851 ATGCATGCTA TACTGTTTTT GGCTTGGGGT CTATACACCC CCGCTTCTC
 901 ATGTTATAGG TGATGGTATA GCTTAGCCTA TAGGTGTGGG TTATTGAOCA
 951 TTATTGACCA CTCCCCTATT GGTGACGATA CTTTCCATTA CTAATCCATA
 1001 ACATGGCTCT TTGCCACAAC TCTCTTTATT GGCTATATGC CAATACACTG
 1051 TCCTTCAGAG ACTGACACGG ACTCTGTATT TTTACAGGAT GGGGTCTCAT
 1101 TTATTATTTA CAAATTCACA TATACAACAC CACCGTCCCC AGTGCCCGCA
 1151 GTTTTTATTA AACATAACGT GGGATCTCCA CGCGAATCTC GGGTACGTGT
 1201 TCCGGACATG GGCTCTTCTC CGGTAGCGGC GGAGCTTCTA CATCCGAGCC

Figure 8 (continued, p2/2)

1251 CTGCTCCCAT GCCTCCAGCG ACTCATGGTC GCTCGGCAGC TCCTTGCTCC
1301 TAACAGTGGG GGGCAGACTT AGGCACAGCA CGATGCCCCAC CACCACCAGT
1351 GTGCCGCACA AGGCCGTGGC GGTAGGGTAT GTGTCTGAAA ATGAGCTCGG
1401 GGAGCGGGCT TGCACCGCTG ACGCATTGG AAGACTTAAG GCAGCGGCAG
1451 AAGAAGATGC AGGCAGCTGA GTTGTGTGT TCTGATAAGA GTCAGAGGTA
1501 ACTCCCGTTG CGGTGCTGTT AACGGTGGAG GGCAGTGTAG TCTGAGCAGT
1551 ACTCGTTGCT GCCGCGCGCG CCACCAGACA TAATAGCTGA CAGACTAACA
1601 GACTGTTCTT TTCCATGGGT CTTTTCTGCA GTCACCGTCC TTAGATCTG
1651 CTGTGCCTTC TAGTTGCCAG CCATCTGTTG TTTGCCCCTC CCCC GTGCCT
1701 TCCTTGACCC TGAAGGTGC CACTCCCACT GTCCTTCTCT AATAAAATGA
1751 GGAAATTGCA TCGCATTGTC TGAGTAGGTG TCATTCTATT CTGGGGGGTG
1801 GGGTGGGGCA GCACAGCAAG GGGGAGGATT GGAAGACAA TAGCAGGCAT
1851 GCTGGGGATG CGGTGGGCTC TATGGGTACC CAGGTGCTGA AGAATTGACC
1901 CGGTTCTCTC TGGGCCAGAA AGAAGCAGGC ACATCCCCCTT CTCTGTGACA
1951 CACCCTGTCC ACGCCCCCTGG TTCTTAGTTC CAGCCCCACT CATAGGACAC
2001 TCATAGCTCA GGAGGGCTCC GCCTTCAATC CCACCCGCTA AAGTACTTGG
2051 AGCGGTCTCT CCTCCCTCA TCAGCCCACC AAACCAAACC TAGCCTCCAA
2101 GAGTGGGAAG AAATTAAAGC AAGATAGGCT ATTAAGTGCA GAGGGAGAGA
2151 AAATGCCTCC AACATGTGAG GAAGTAATGA GAGAAATCAT AGAATTC

FIGURE 9

**Anti-Nucleoprotein antibody in monkeys
injected with pn-RSV-NP**

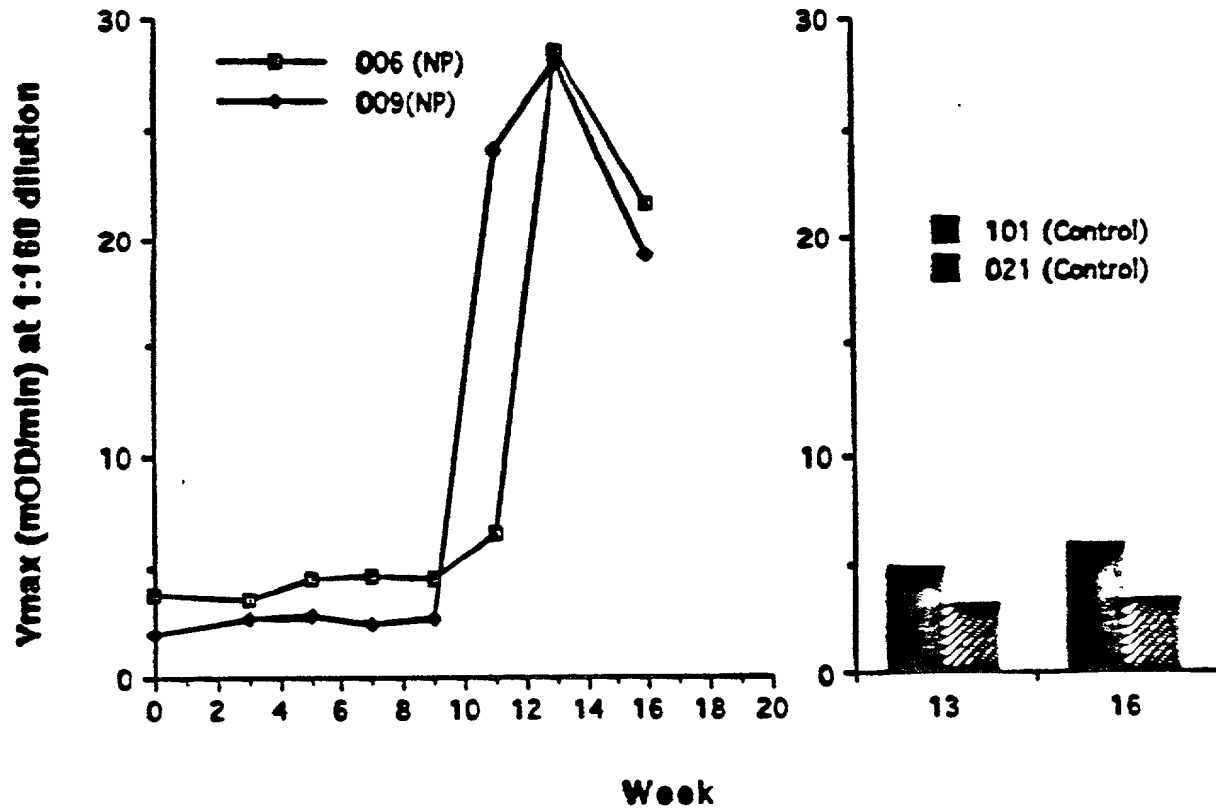


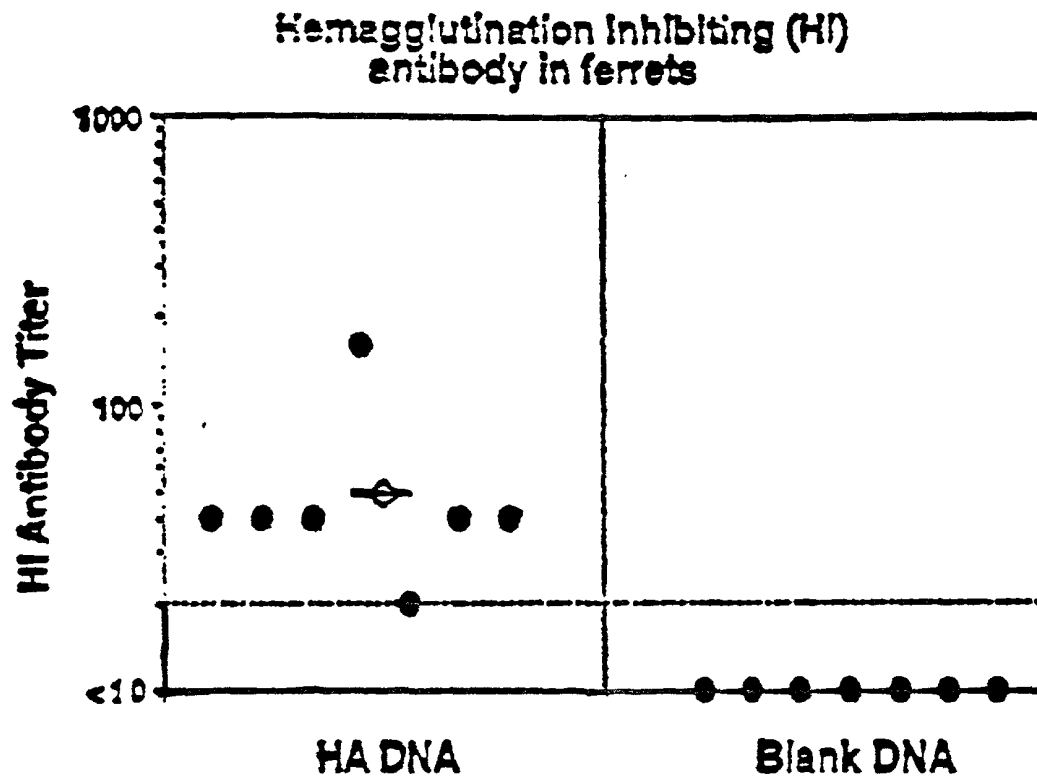
FIGURE 10

FIGURE 11

IgG anti-NP antibody in ferrets after
DNA immunization

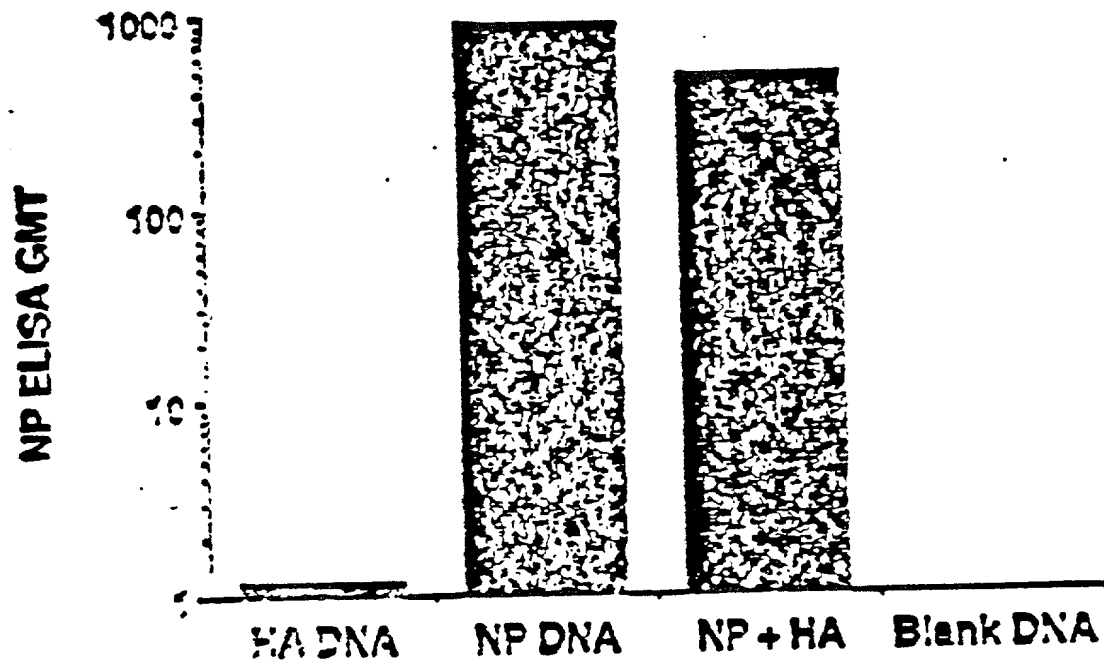
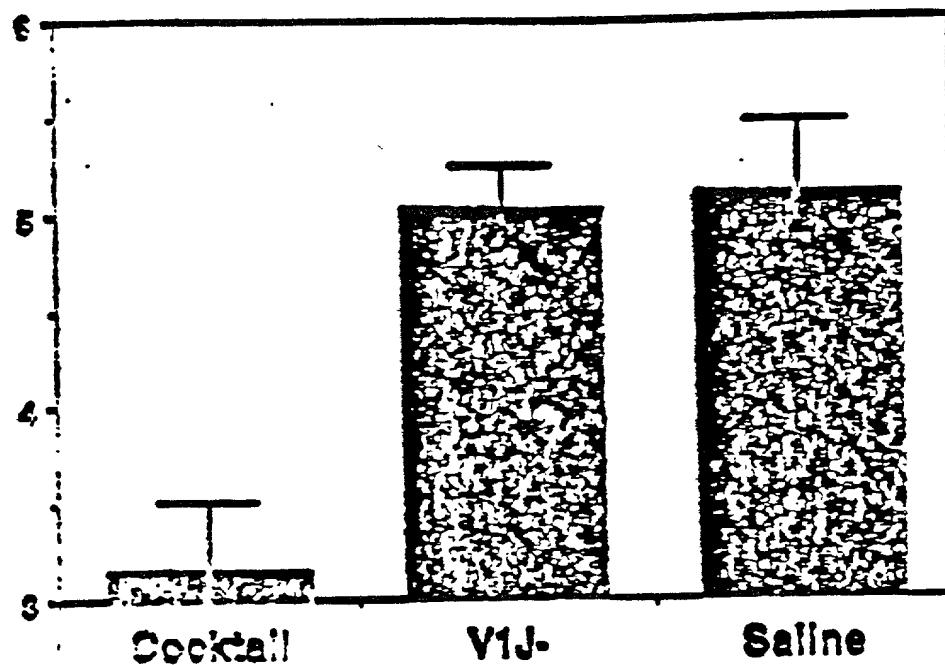


FIGURE 12
Viral shedding in ferrets

Mean Log Nasal Wash Infectivity \pm SEM



Viral shedding in ferrets

Mean Log Nasal Wash Infectivity \pm SEM

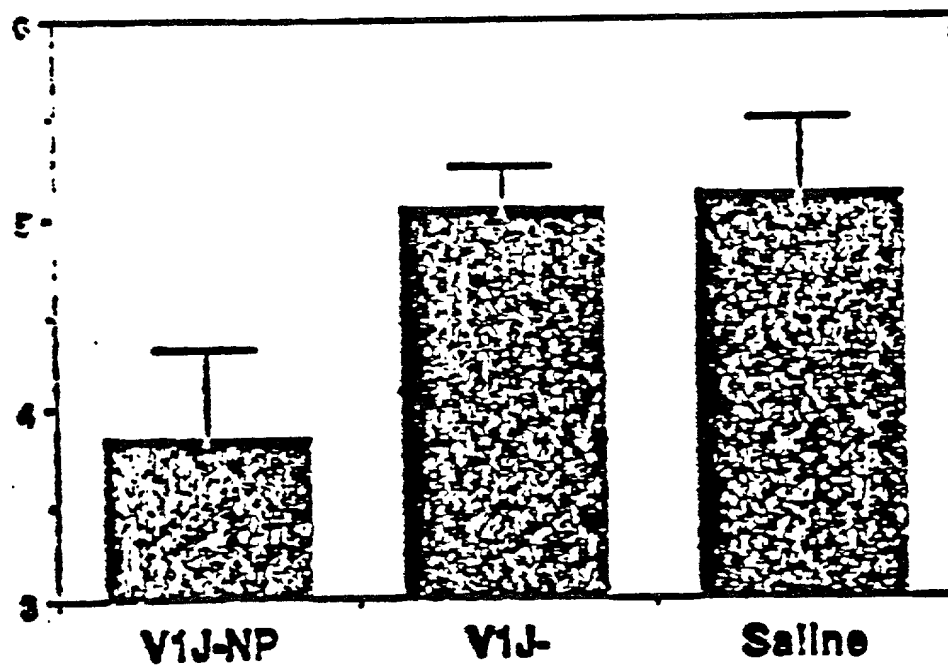


FIGURE 13

PLASMID DNA CONSTRUCTS

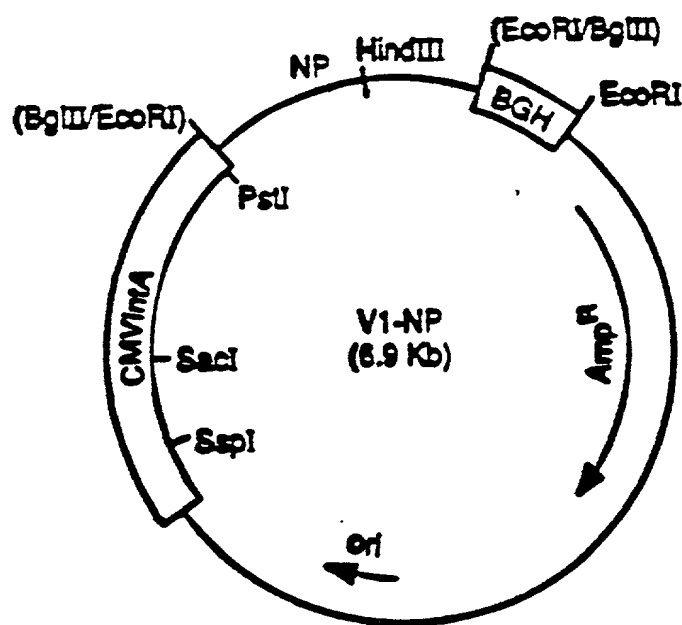
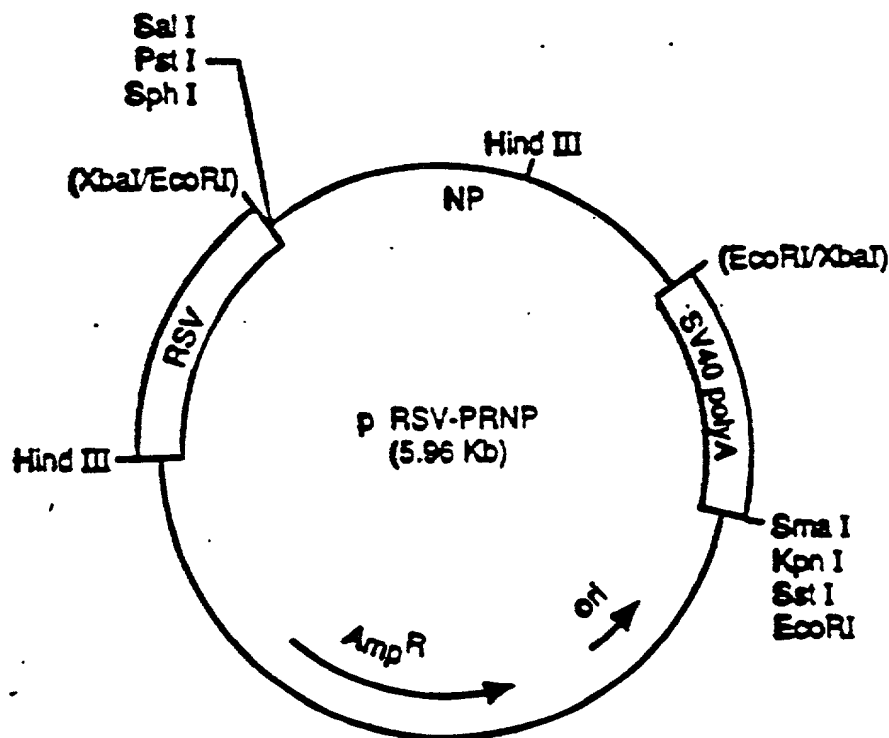


FIGURE 14

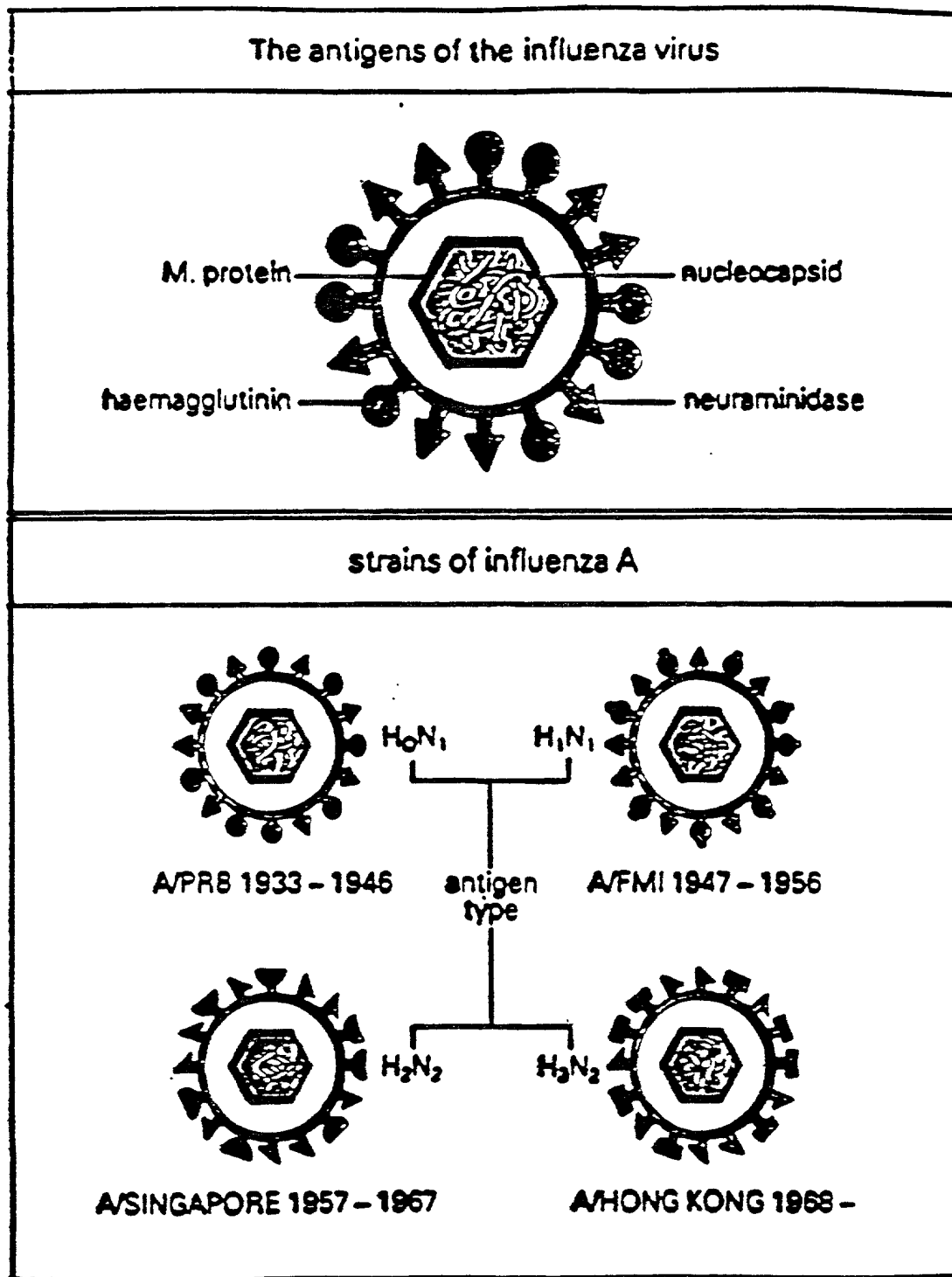


FIGURE 15

INJECTION OF DNA ENCODING A VIRAL PROTEIN GENERATES KILLER T CELLS

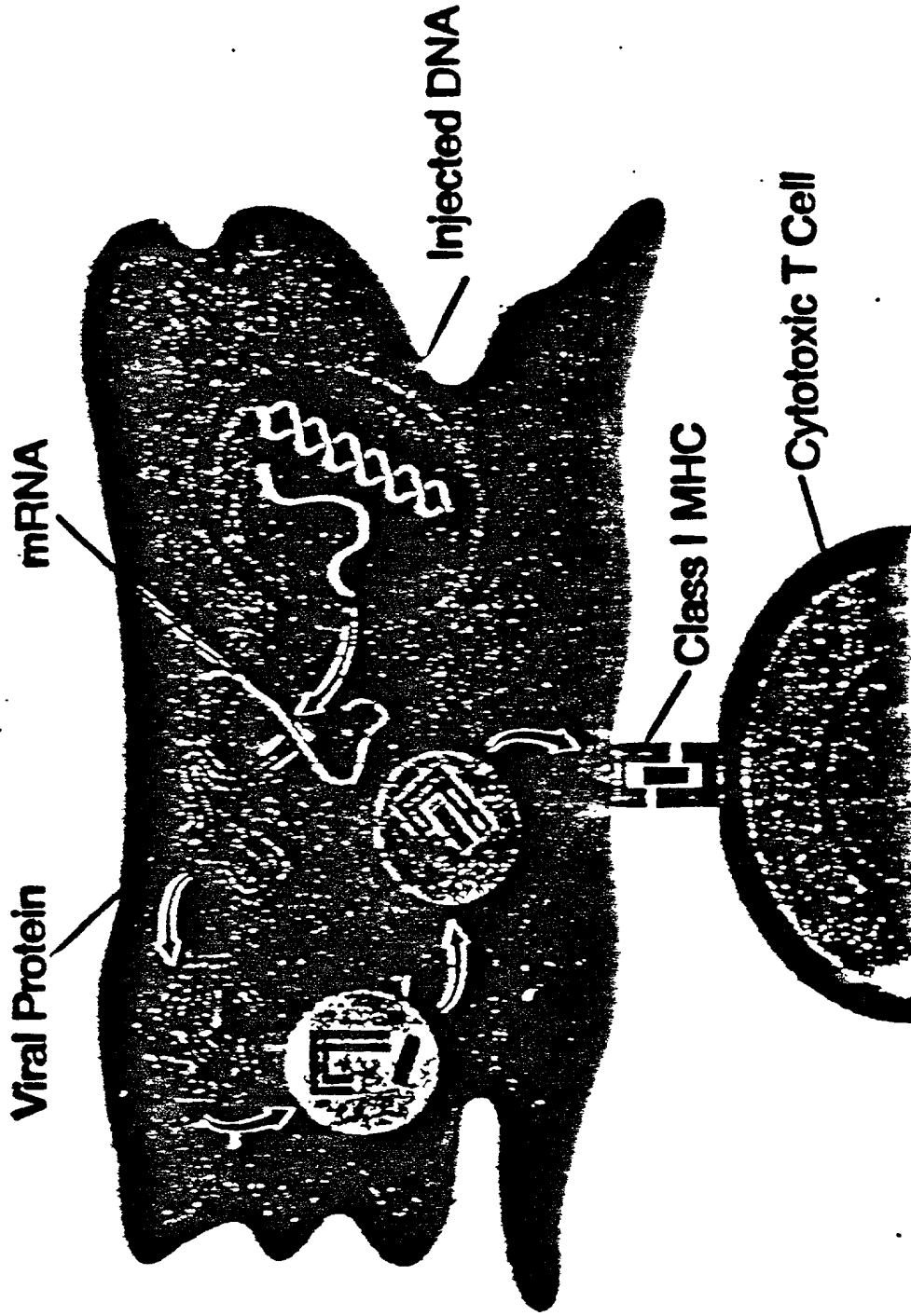


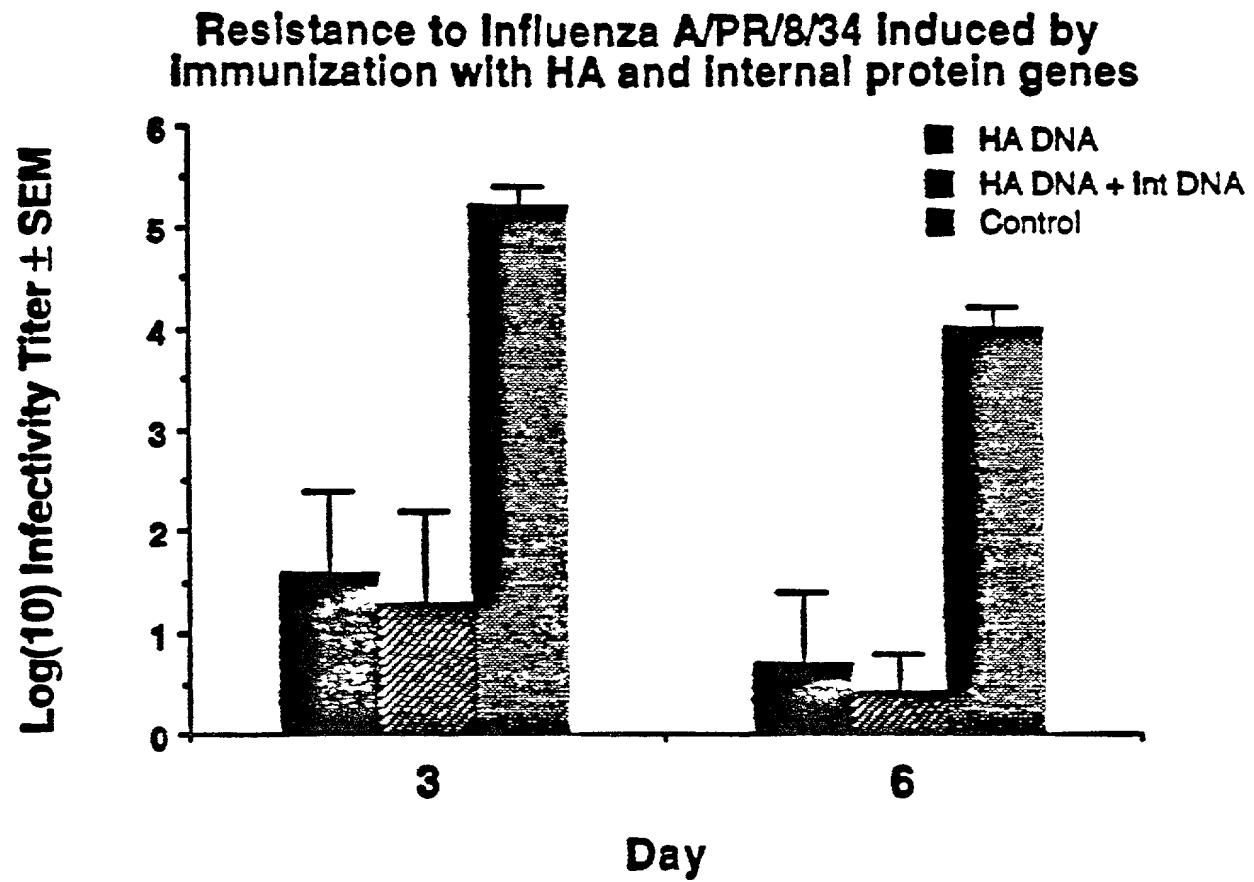
Figure 16

FIGURE 17

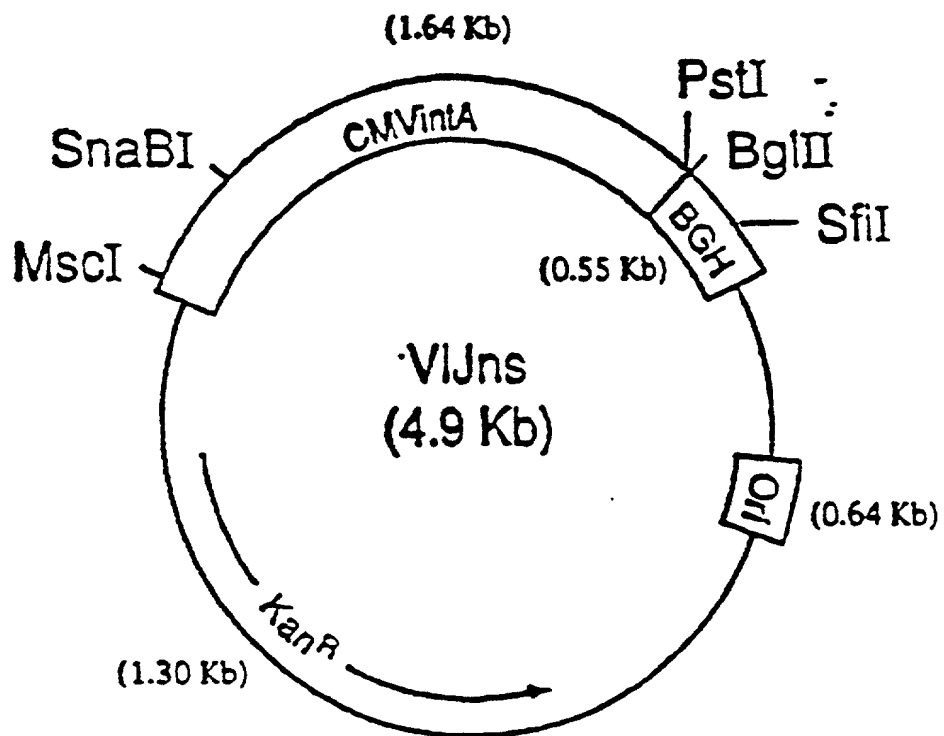


Figure 18

Immunogenicity and Duration of Response in African Green Monkeys

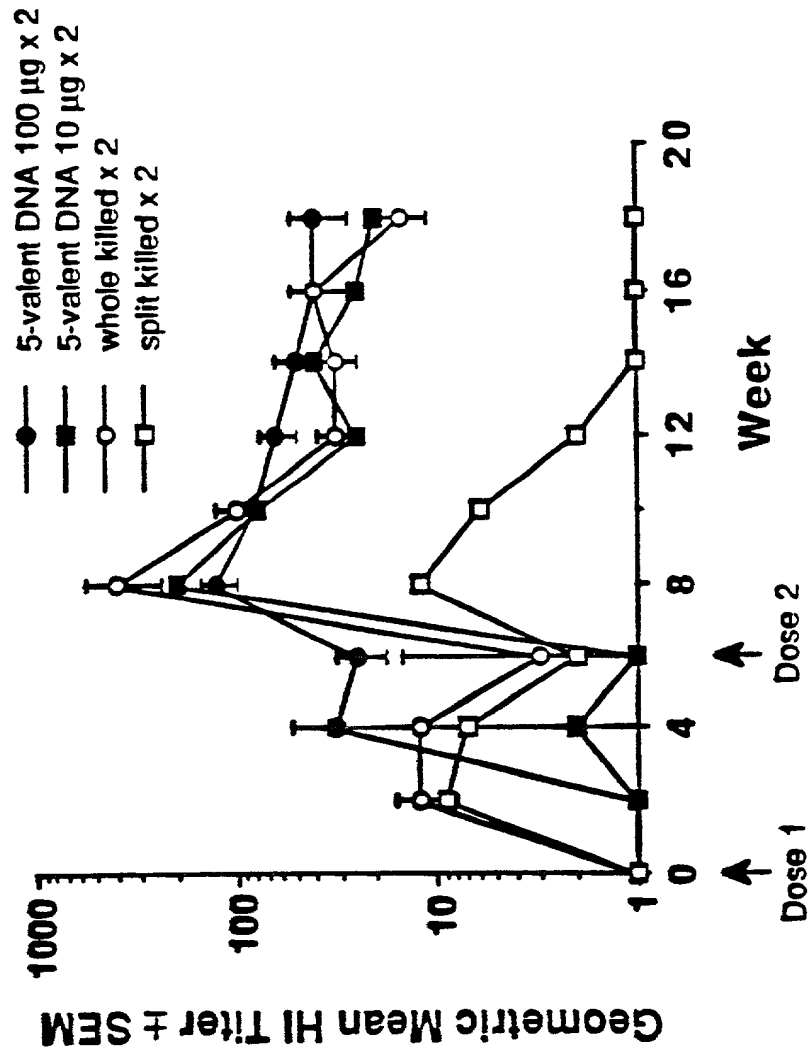


Figure 19

Cytotoxic T Cells 6 Months After Immunization With NP DNA

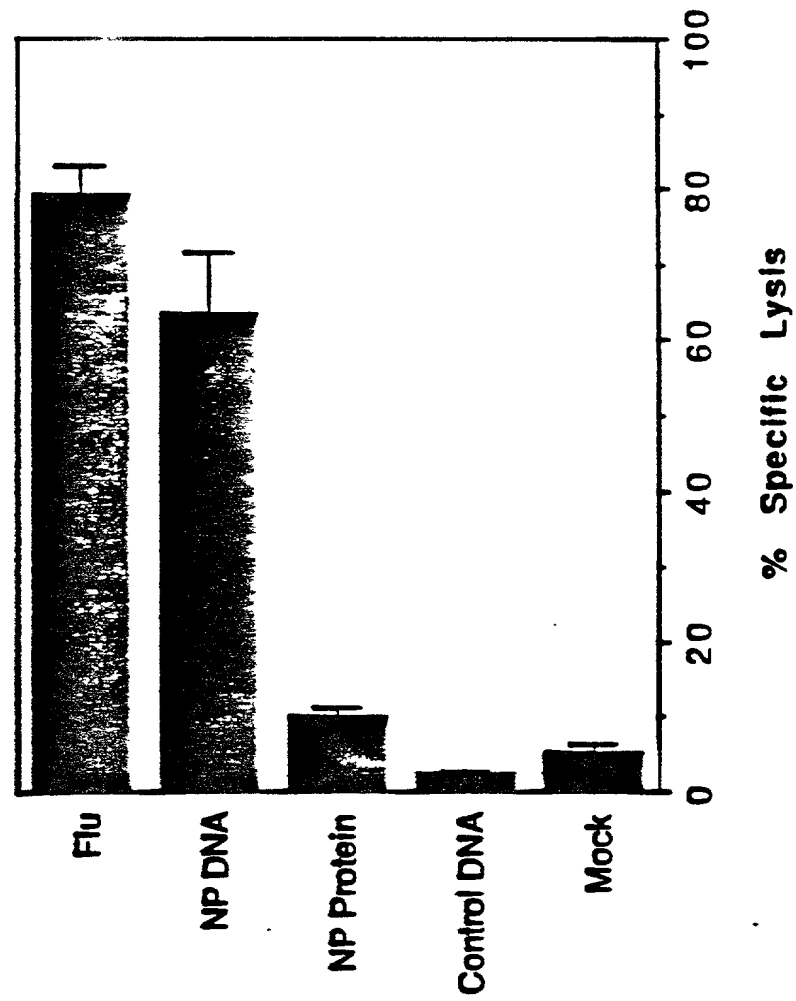


Figure 20

Expression of NP by Muscle Cells In Vivo is Sufficient for Generation of CTL

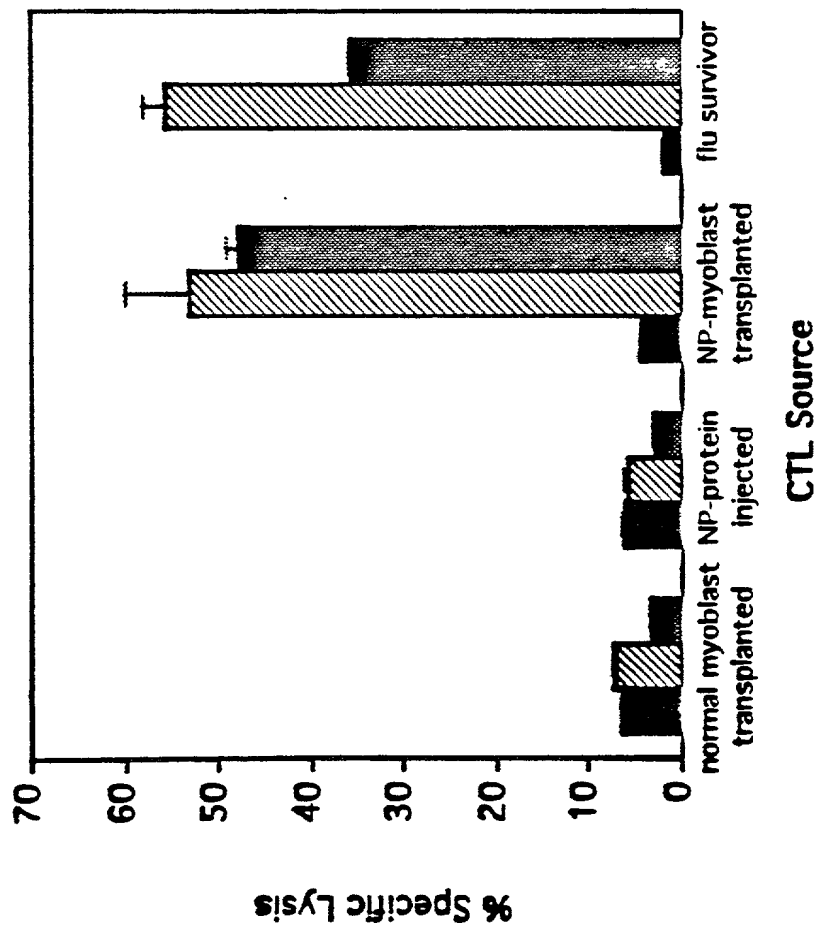


Figure 21

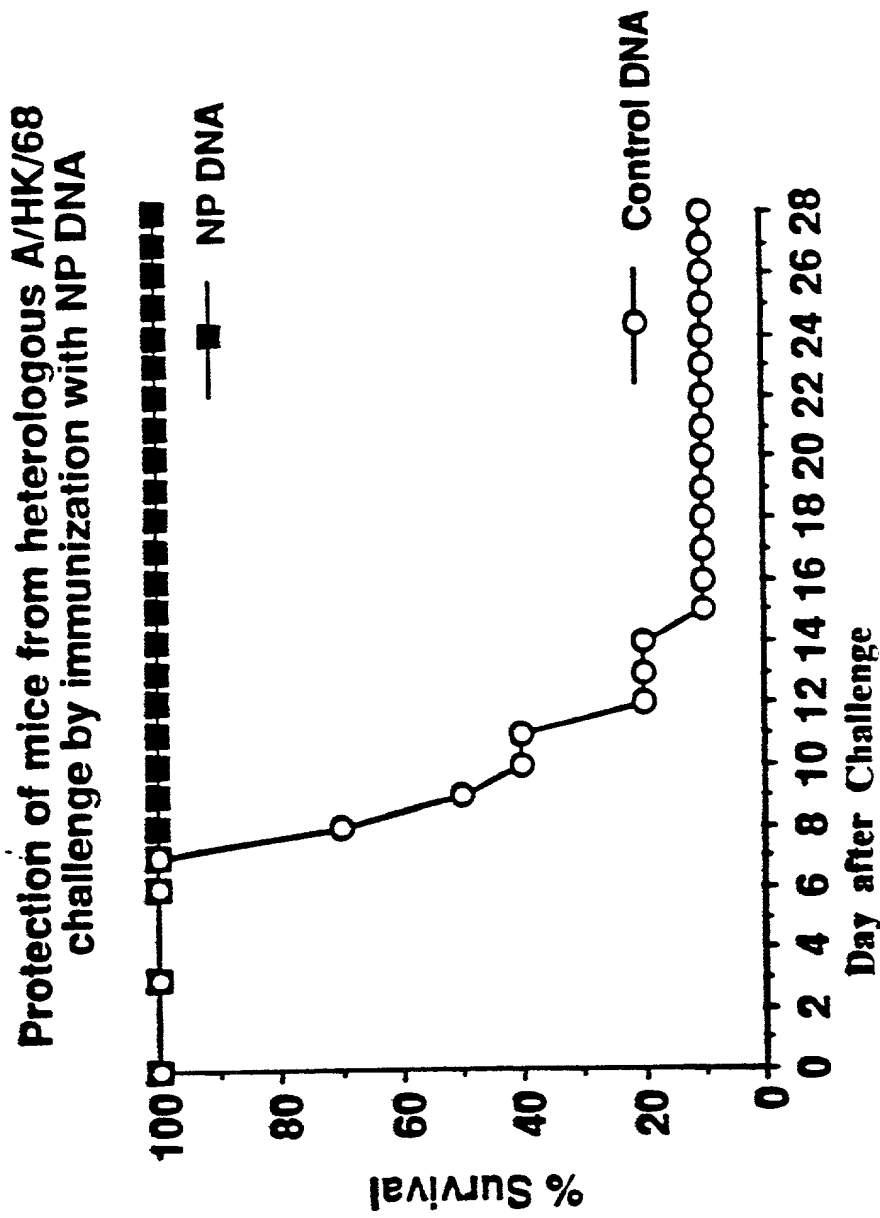


Figure 22

Protection from weight loss during heterologous challenge with A/HK/68 by immunization with NP DNA

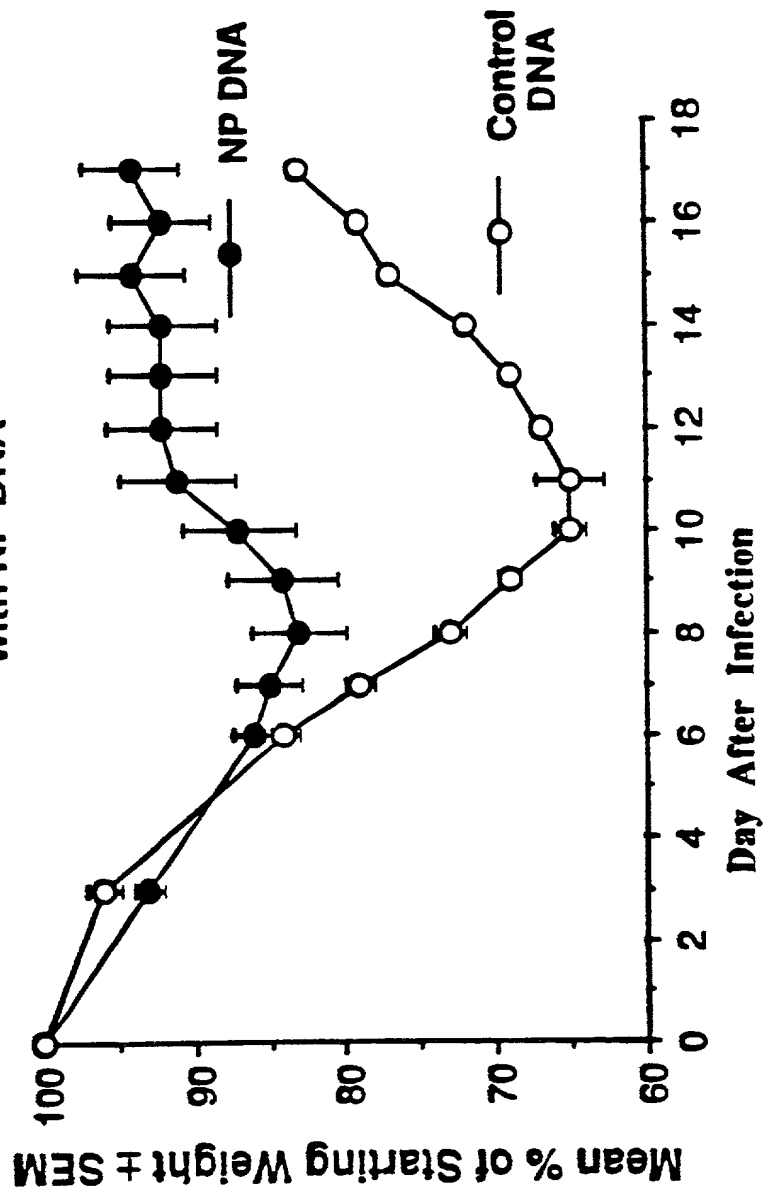


Figure 23

Reduction of viral lung titers following challenge with A/HK/68 by immunization with NP DNA

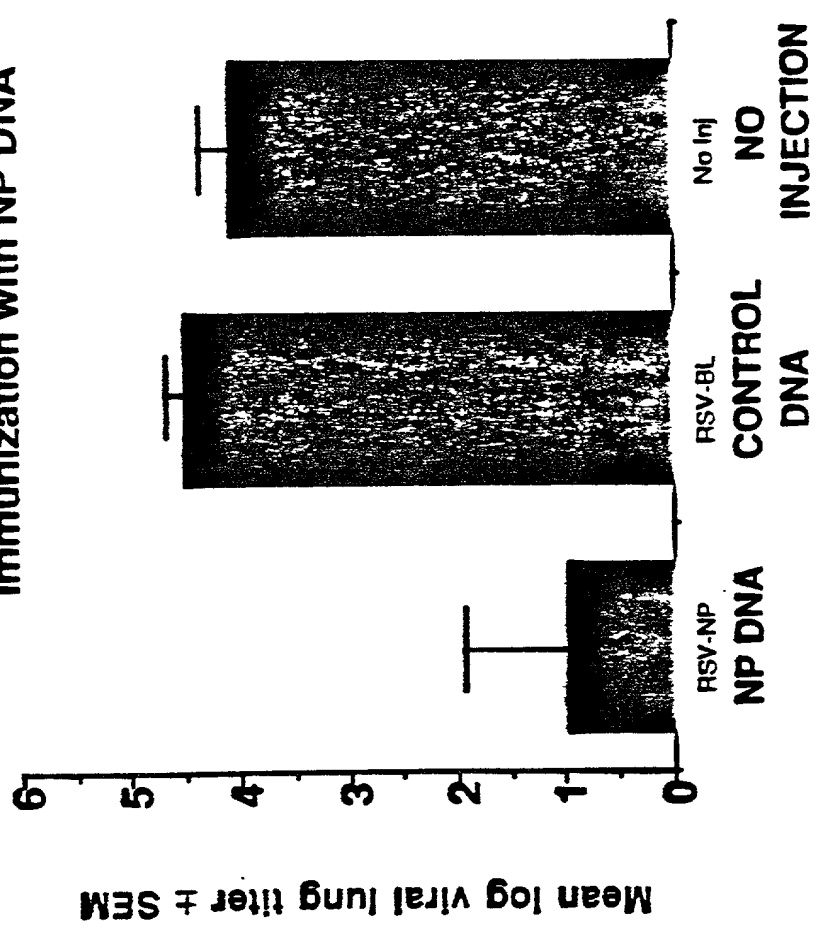


Figure 24

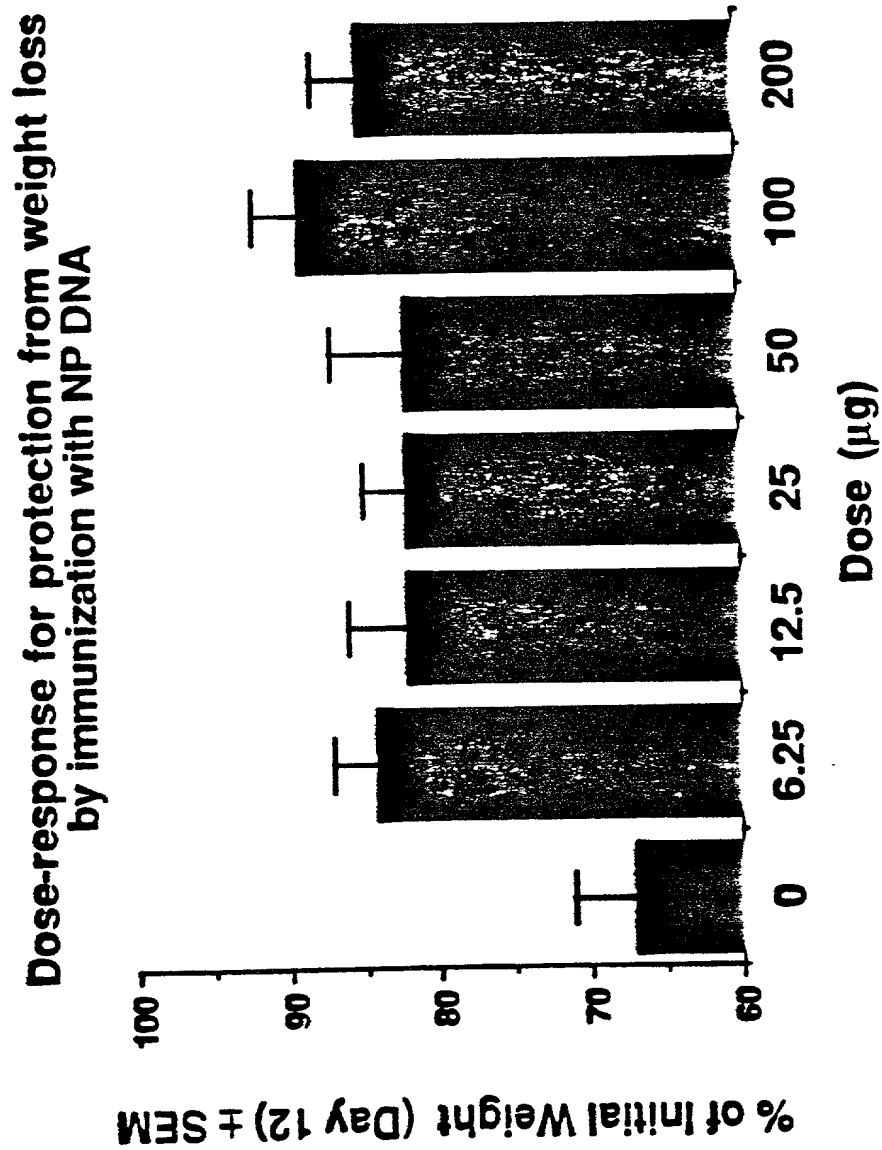


Figure 25

Duration of protection of mice against heterologous challenge with A/HK/68 after immunization with NP DNA

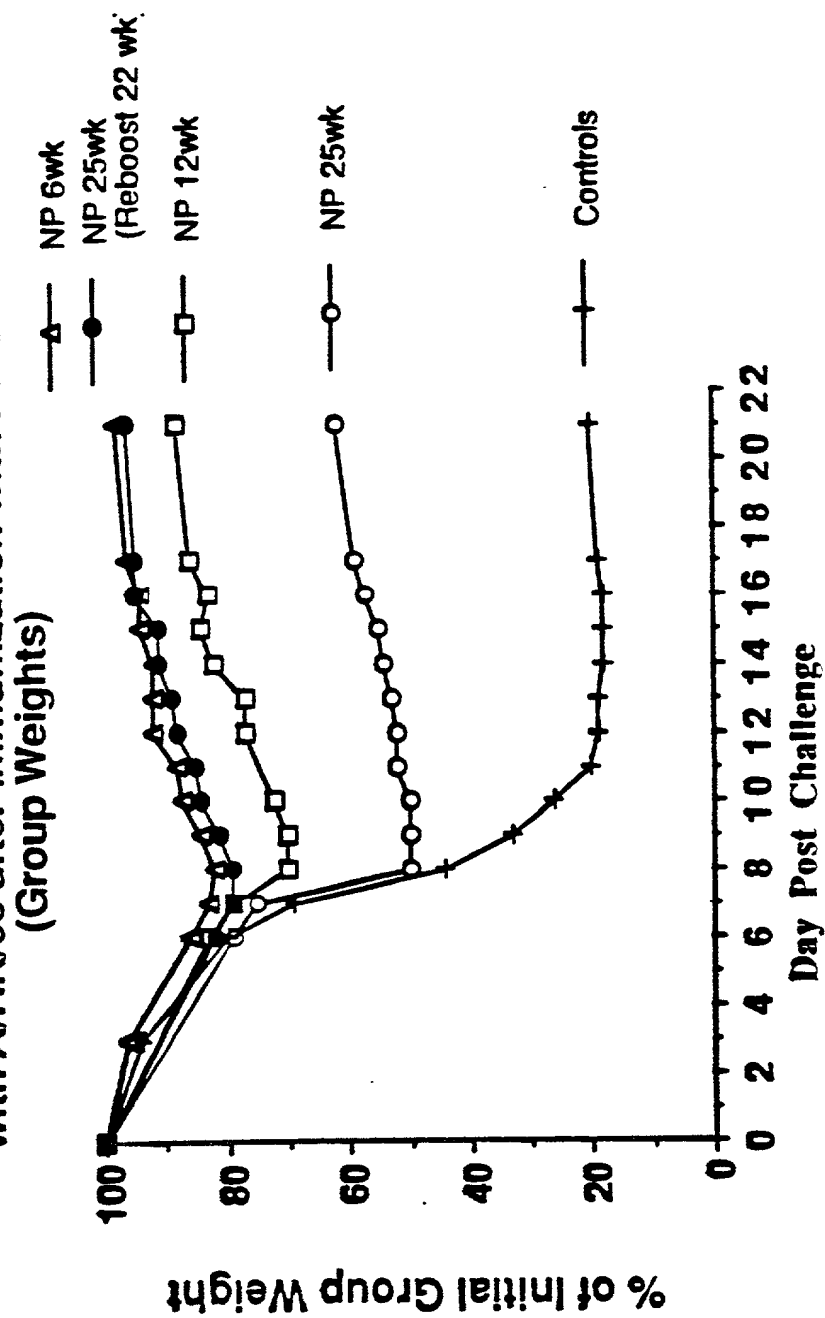


Figure 26

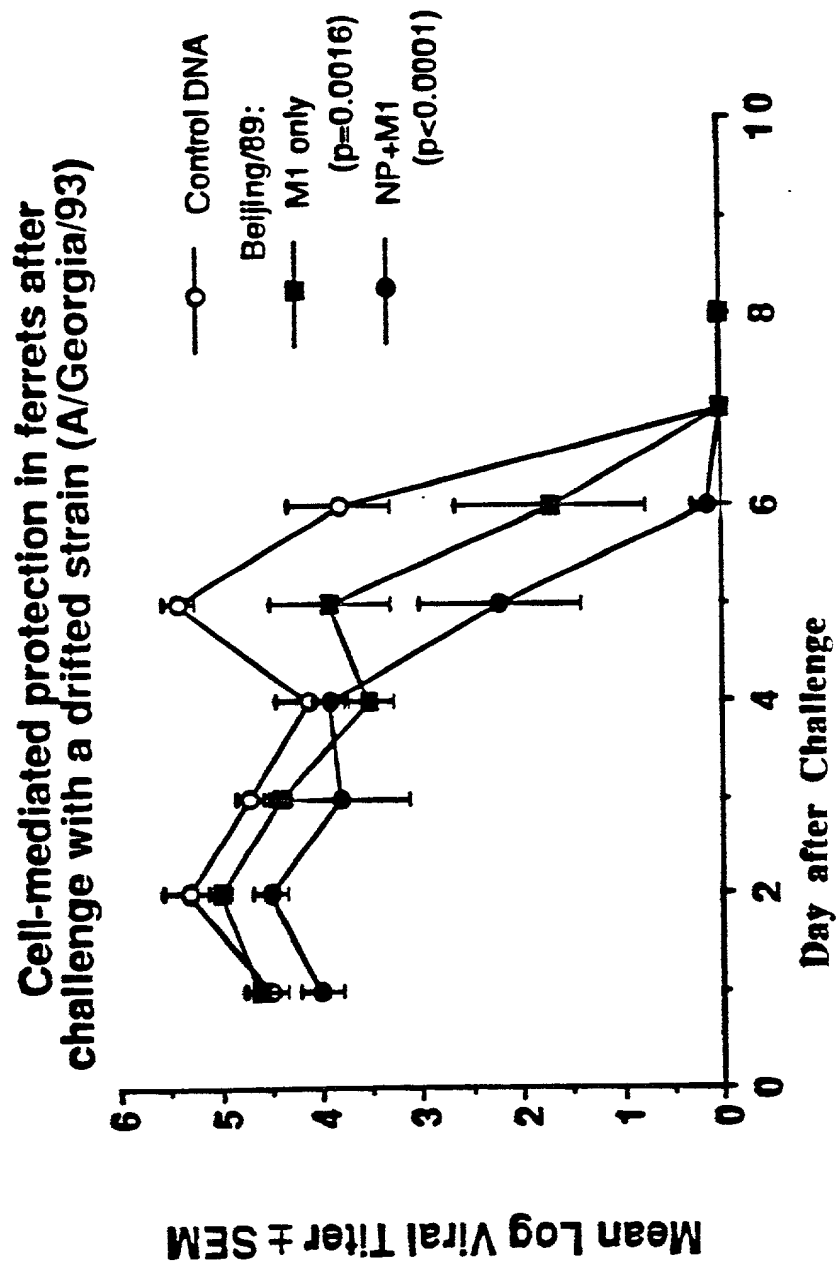
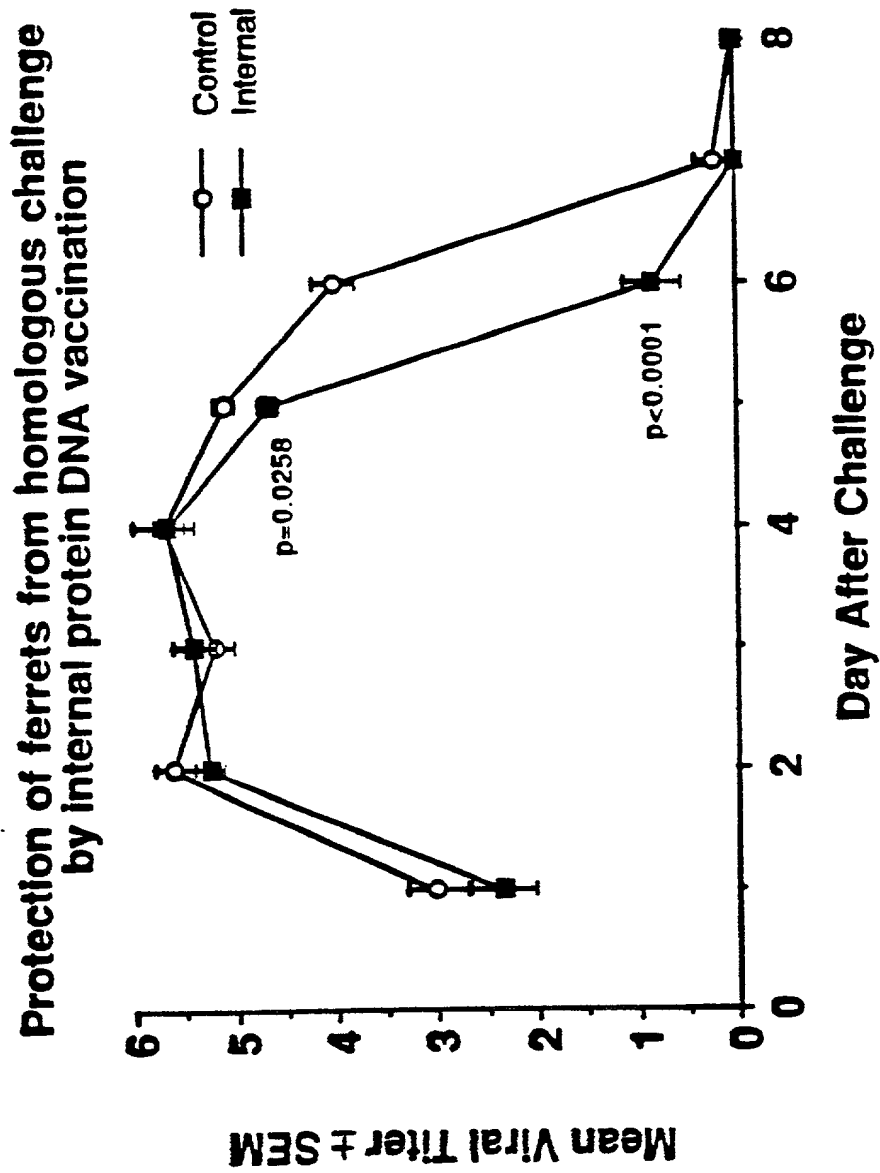


Figure 27



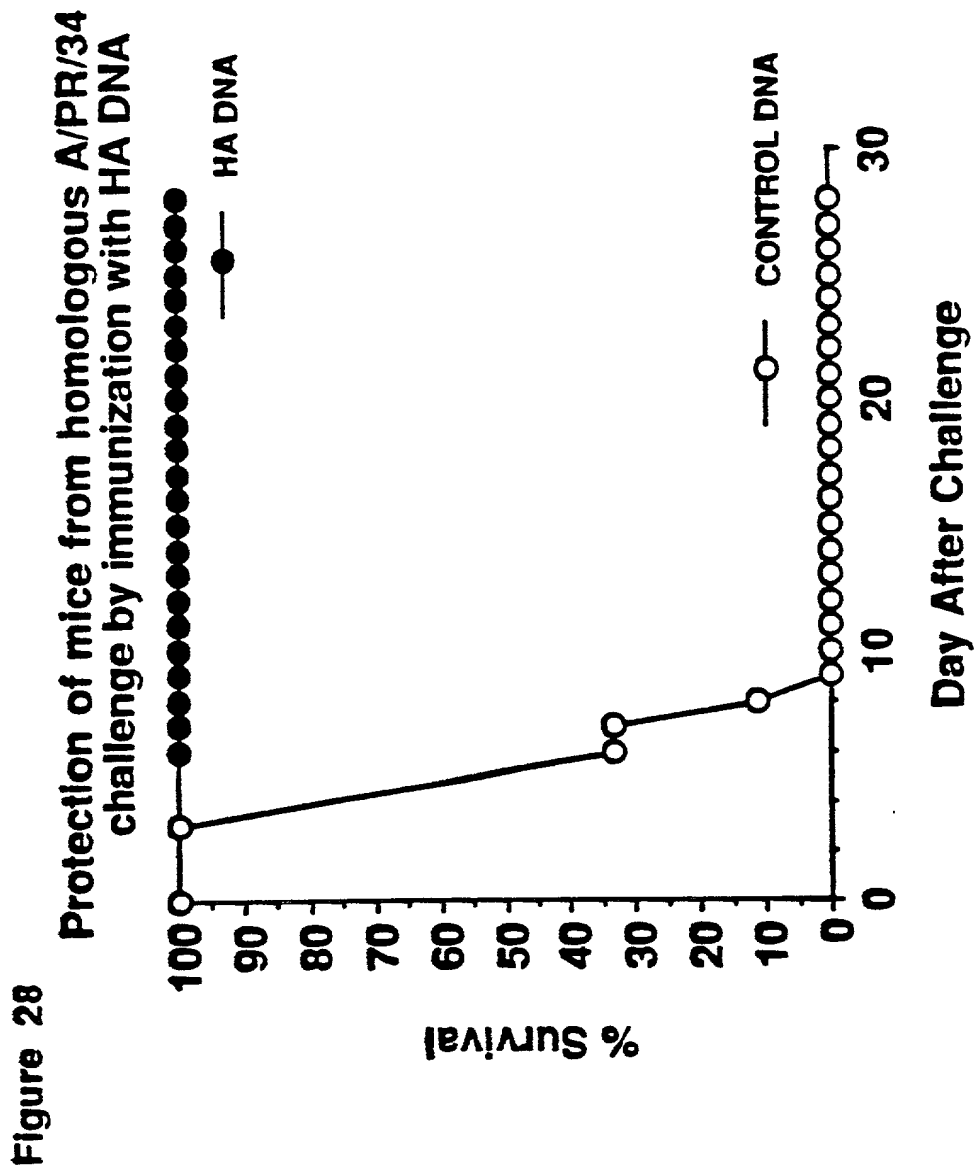


Figure 29

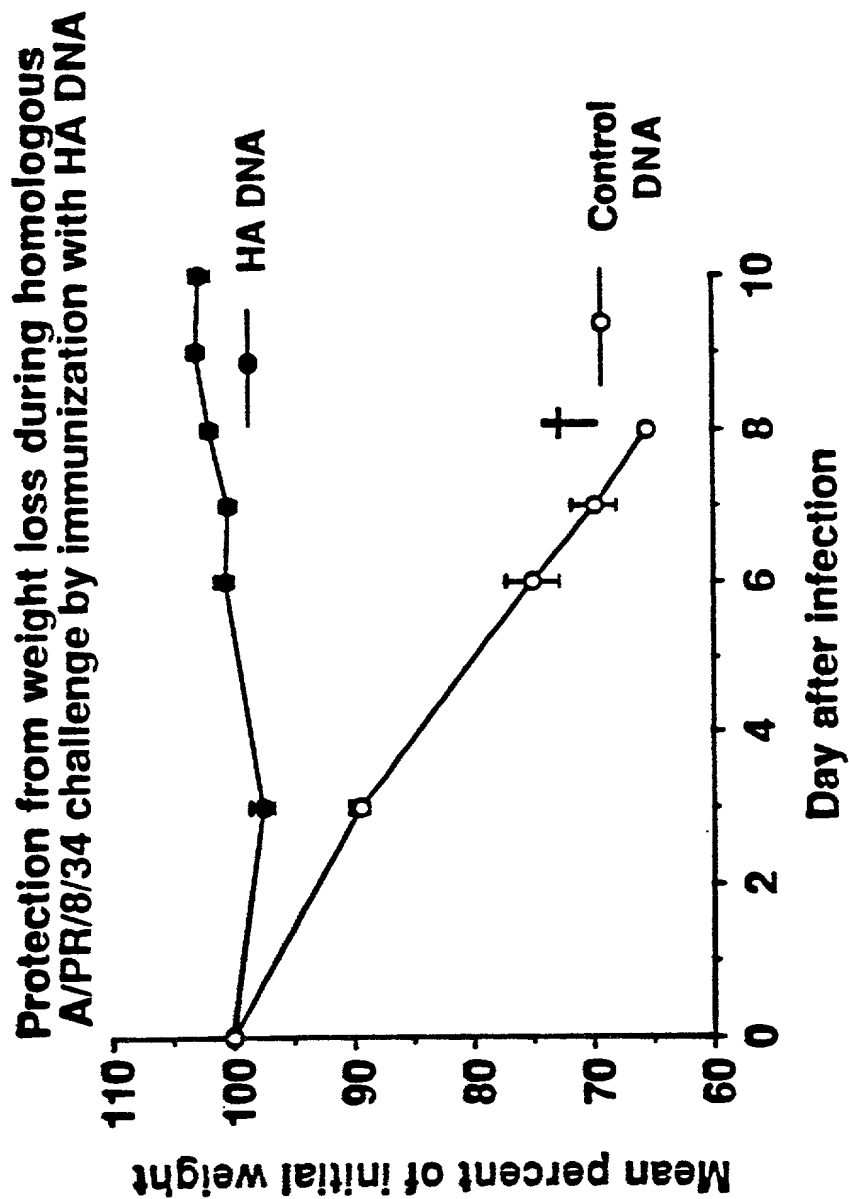


Figure 30

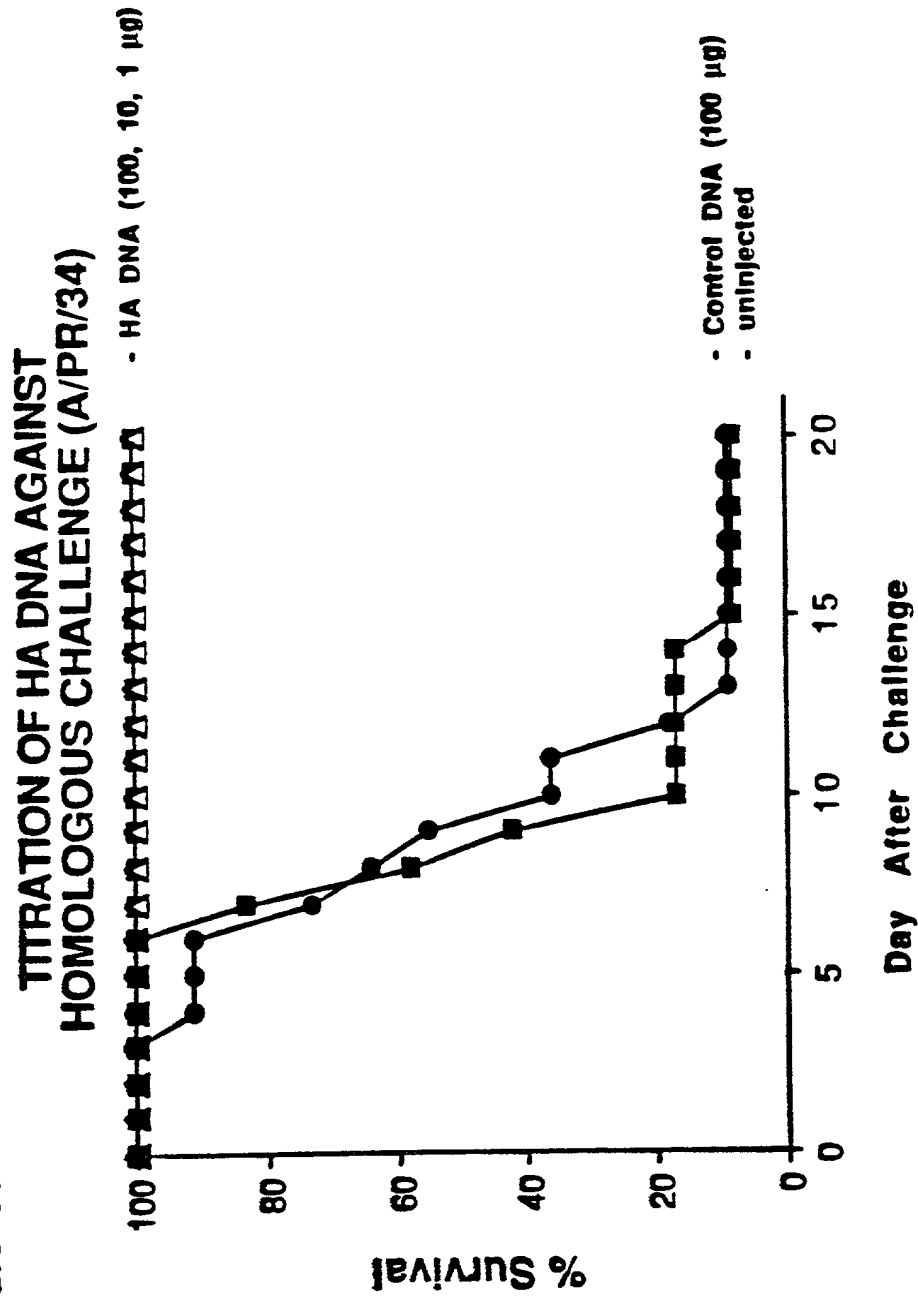


Figure 31

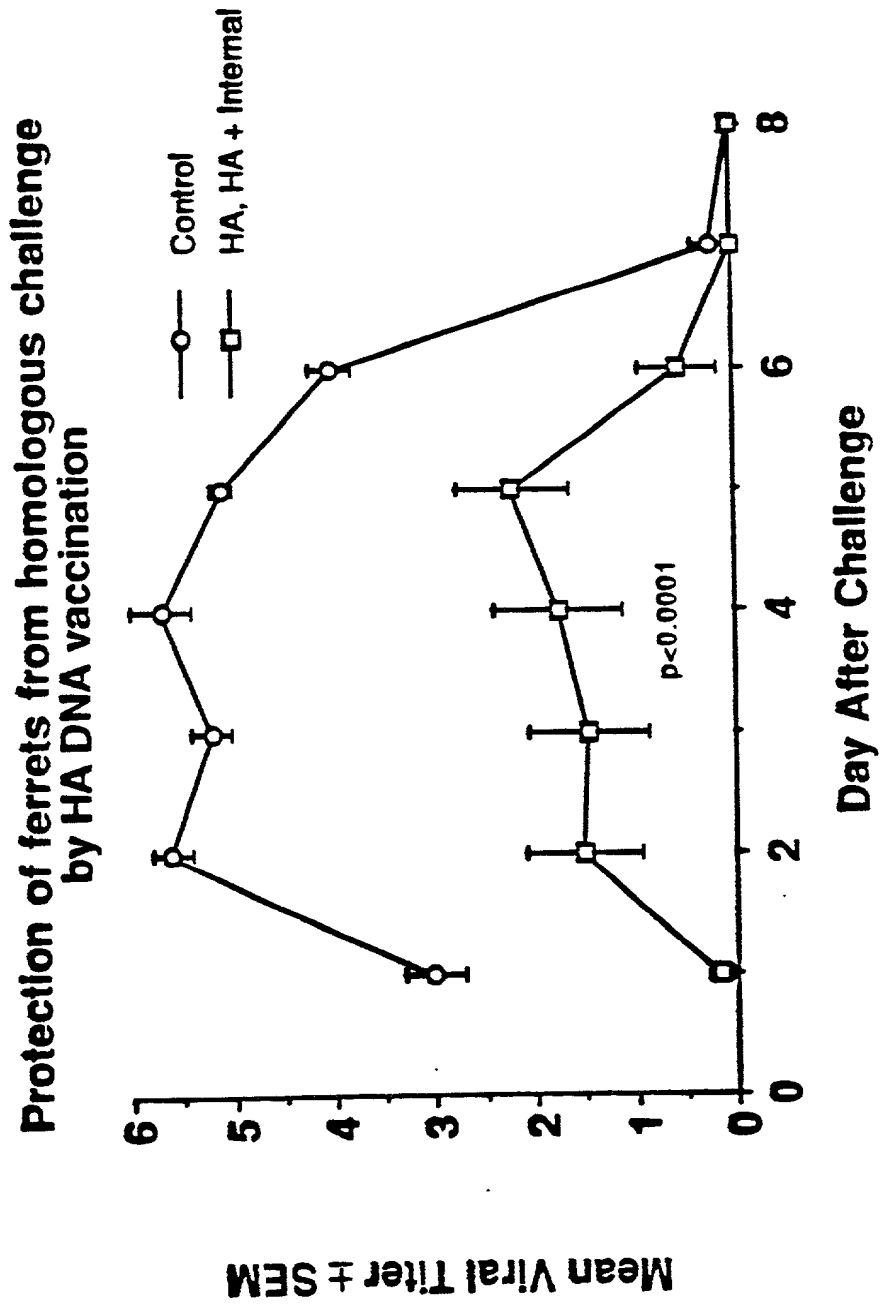


Figure 32

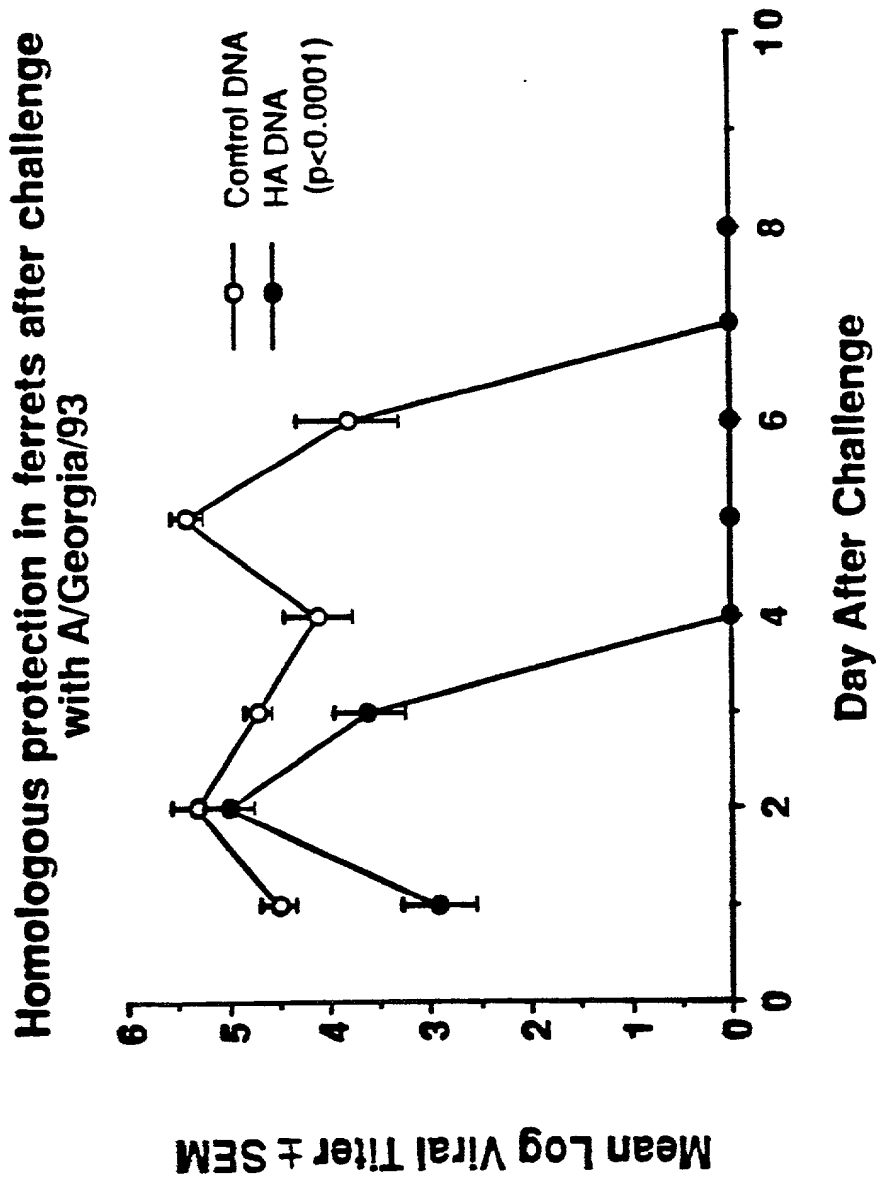


Figure 33

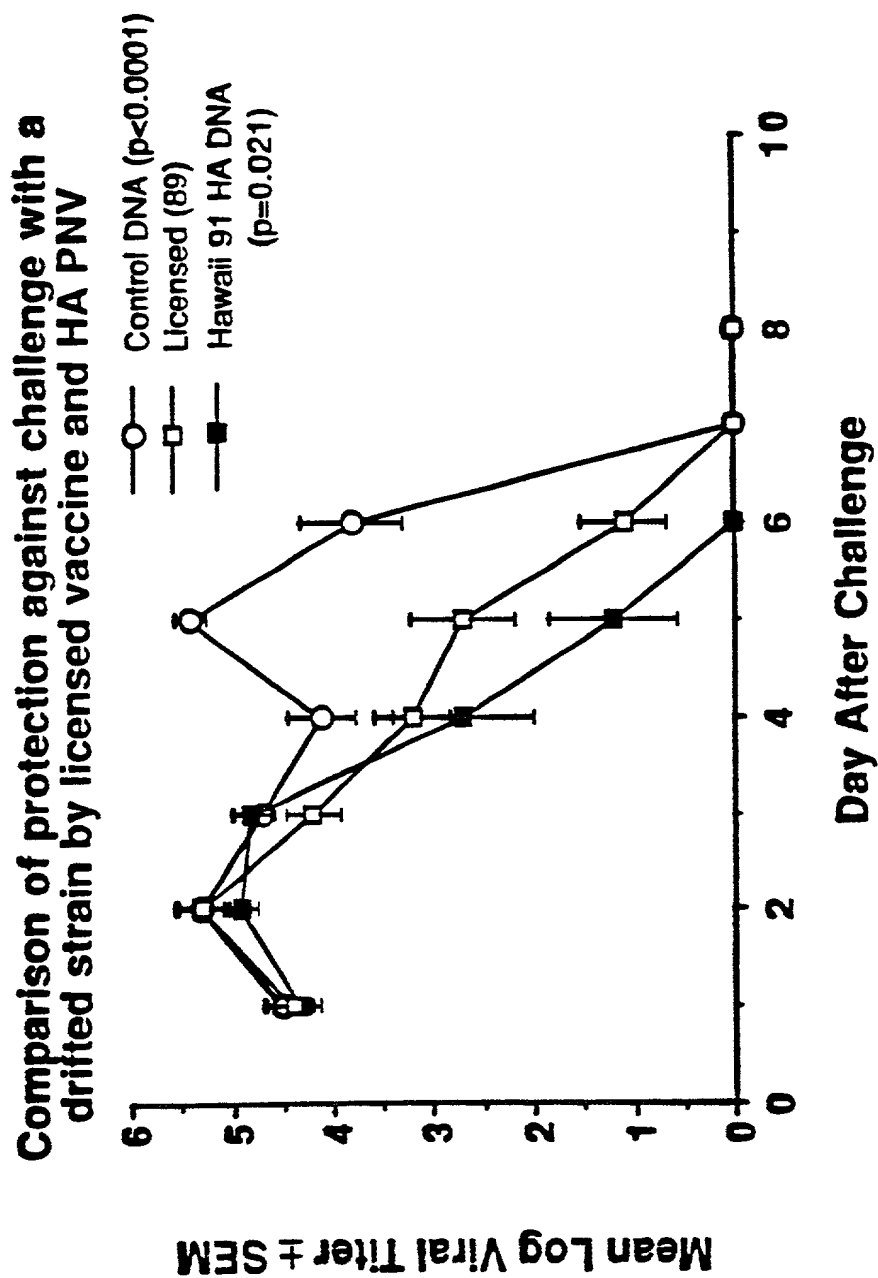


Figure 34

Comparison of PNV with licensed vaccine in ferrets after challenge with a drifted strain (A/Georgia/93)

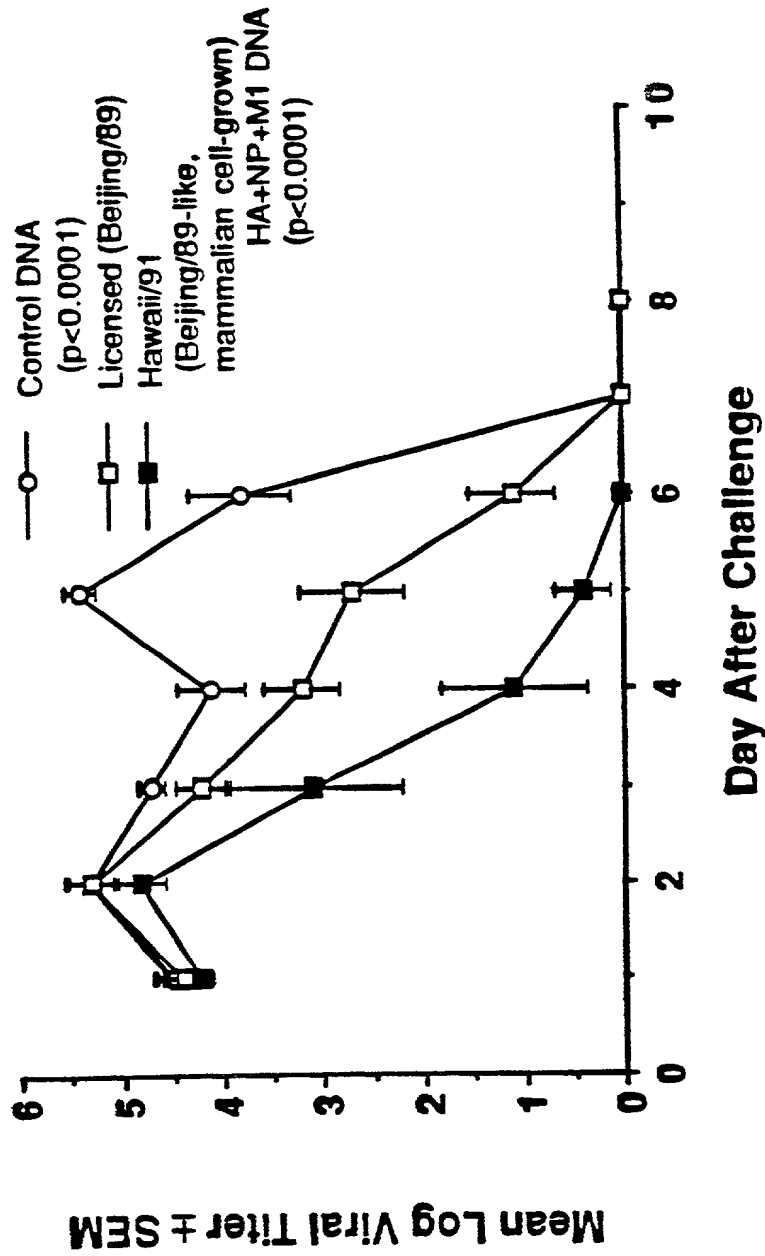


Figure 35

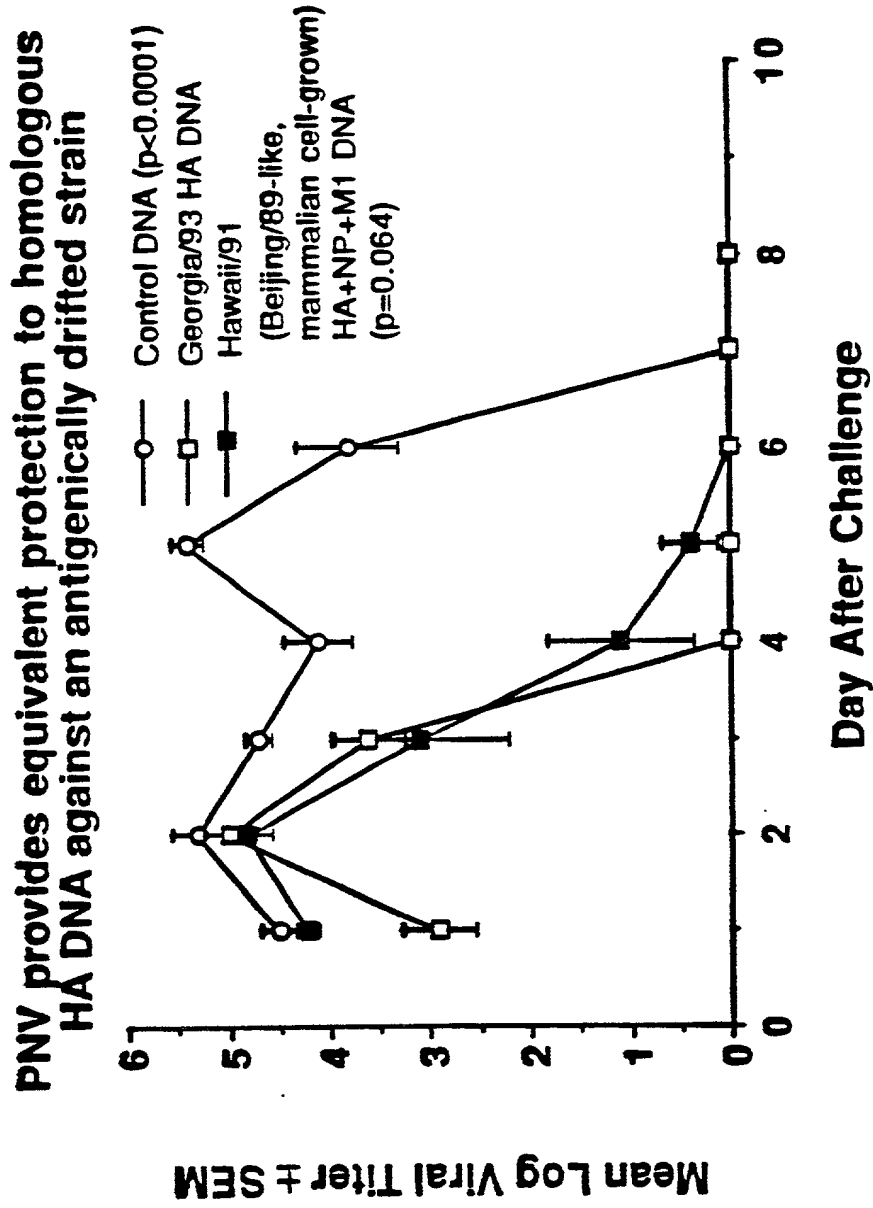


FIGURE 36, VIR SEQUENCE, SEQ.ID:45:

1 GATATTGG CTATTGGCCA
251 TTGCATACGT TGTATCCATA TCATAATATG TACATTTATA TTGGCTCATG
301 TCCAACATTA CCGCCATGTT GACATTGATT ATTGACTAGT TATTAATAGT
351 AATCAATTAC GGGGTCATTA GTTCATAGCC CATATATGGA GTTCCGCGTT
401 ACATAACTTA CGGTAAATGG CCCGCCTGGC TGACCGCCCA ACGACCCCCG
451 CCCATTGACG TCAATAATGA CGTATGTTCC CATAGTAACG CCAATAGGGA
501 CTTTCCATTG ACGTCAATGG GTGGAGTATT TACGGTAAAC TGCCCCACTTG
551 GCAGTACATC AAGTGTATCA TATGCCAAGT ACGCCCCCTA TTGACGTCAA
601 TGACGGTAAA TGGCCCGCCT GGCATTATGC CCAGTACATG ACCTTATGGG
651 ACTTTCCTAC TTGGCAGTAC ATCTACGTAT TAGTCATCGC TATTACCATG
701 GTGATGCGGT TTTGGCAGTA CATCAATGGG CGTGGATAGC GGTTTGACTC
751 ACGGGGATTT CCAAGTCTCC ACCCCATTGA CGTCAATGGG AGTTTGTTTT
801 GGCACCAAAA TCAACGGGAC TTTCCAAAAT GTCGTAACAA CTCCGCCCCA
851 TTGACGCAAA TGGGCGGTAG GCGTGTACGG TGGGAGGTCT ATATAAGCAG
901 AGCTCGTTTA GTGAACCGTC AGATCGCCTG GAGACGCCAT CCACGCTGTT
951 TTGACCTCCA TAGAAGACAC CGGGACCGAT CCAGCCTCCG CGGCCGGGAA
1001 CGGTGCATTG GAACGCGGAT TCCCCGTGCC AAGAGTGACG TAAGTACCGC
1051 CTATAGAGTC TATAGGCCCA CCCCCTTGGC TTCTTATGCA TGCTATACTG
1101 TTTTGGCTT GGGGTCTATA CACCCCCGCT TCCTCATGTT ATAGGTGATG
1151 GTATAGCTTA GCCTATAGGT GTGGGTTATT GACCATTATT GACCACTCCC
1201 CTATTGGTGA CGATACTTTC CATTACTAAT CCATAACATG GCTCTTTGCC
1251 ACAACTCTCT TTATTGGCTA TATGCCAATA CACTGTCCTT CAGAGACTGA
1301 CACGGACTCT GTATTTTAC AGGATGGGGT CTCATTTATT ATTTACAAAT
1351 TCACATATAC AACACCACCG TCCCCAGTGC CCGCAGTTTT TATTAAACAT

Figure 36 (continued, p2/3)

1401 AACGTGGGAT CTCCACGCGA ATCTCGGGTA CGTGTTCCGG ACATGGGCTC
 1451 TTCTCCGGTA GCGGCGGAGC TTCTACATCC GAGCCCTGCT CCCATGCCTC
 1501 CAGCGACTCA TGGTCGCTCG GCAGCTCCTT GCTCCTAACA GTGGAGGCCA
 1551 GACTTAGGCA CAGCACGATG CCCACCACCA CCAGTGTGCC GCACAAGGCC
 1601 GTGGCGGTAG GGTATGTGTC TGAAAATGAG CTCGGGGAGC GGGCTTGAC
 1651 CGCTGACGCA TTTGGAAGAC TTAAGGCAGC GGCAGAAGAA GATGCAGGCA
 1701 GCTGAGTTGT TGTGTTCTGA TAAGAGTCAG AGGTA ACTCC CGTTGCGGTG
 1751 CTGTTAACGG TGGAGGGCAG TGTAGTCTGA GCAGTACTCG TTGCTGCCGC
 1801 GCGCGCCACC AGACATAATA GCTGACAGAC TAACAGACTG TTCCTTTCCA
 1851 TGGGTCTTTT CTGCAGTCAC CGTCCTTAG ATCTGCTGTG CTTTCTAGTT
 1901 GCCAGCCATC TGTGTTTGC CCTCCCCCG TGCTTCCTT GACCCTGGAA
 1951 GGTGCCACTC CCACTGTCCT TTCCTAATAA AATGAGGAAA TTGCATCGCA
 2001 TTGTCTGAGT AGGTGTCATT CTATTCTGGG GGGTGGGGTG GGGCAGCACA
 2051 GCAAGGGGGA GGATTGGGAA GACAATAGCA GGCATGCTGG GGATGCGGTG
 2101 GGCTCTATGG GTAC GGCCGCAGCGGCC GTACCCAGGT GCTGAAGAAT
 TGACCCGGTT CCTCGACCCGT AAAAAGGCCG
 2601 CGTTGCTGGC GTTTTCCAT AGGCTCCGCC CCCCTGACGA GCATCACAAA
 2651 AATCGACGCT CAAGTCAGAG GTGGCGAAAC CCGACAGGAC TATAAAGATA
 2701 CCAGGCGTTT CCCCCTGGAA GCTCCCTCGT GCGCTCTCCT GTTCCGACCC
 2751 TGCCGCTTAC CGGATACCTG TCCGCCTTTC TCCCTTCGGG AAGCGTGGCG
 2801 CTTTCTCAAT GCTCAOGCTG TAGGTATCTC AGTTCGGTGT AGGTCGTTCC
 2851 CTCCAAGCTG GGCTGTGTGC ACGAACCCCC CGTTCAGCCC GACCGCTGCG
 2901 CCTTATCCGG TAACTATCGT CTTGAGTCCA ACCCGGTAAG ACACGACTTA
 2951 TCGCCACTGG CAGCAGCCAC TGGTAACAGG ATTAGCAGAG CGAGGTATGT
 3001 AGGCGGTGCT ACAGAGTTCT TGAAGTGGTG GCCTAACTAC GGCTACACTA

Figure 36 (continued, p3/3)

3051 GAAGGACAGT ATTTGGTATC TGCGCTCTGC TGAAGCCAGT TACCTTCGGA
 3101 AAAAGAGTTG GTAGCTCTTG ATCCGGCAAA CAAACCACCG CTGGTAGCGG
 3151 TGGTTTTTTT GTTTGCAAGC AGCAGATTAC GCGCAGAAAA AAAGGATCTC
 3201 AAGAAGATCC TTTGATCTTT TCTACGTGATCC CGTAATGC TCTGCCAGTG
 TTACAACCAA TTAACCAATT CTGATTAGAA
 3751 AAATCATCG AGCATCAAAT GAAACTGCAA TTTATTCATA TCAGGATTAT
 3801 CAATACCATA TTTTGAAAA AGCCGTTTCT GTAATGAAGG AGAAAACTCA
 3851 CCGAGGCAGT TCCATAGGAT GGCAAGATCC TGGTATCGGT CTGCGATTCC
 3901 GACTCGTCCA ACATCAATAC AACCTATTAA TTTCCCCTCG TCAAAAATAA
 3951 GGTATCAAG TGAGAAATCA CCATGAGTGA CGACTGAATC CGGTGAGAAT
 4001 GGCAAAAGCT TATGCATTTT TTTCCAGACT TGTTC AACAG GCCAGCCATT
 4051 ACGCTCGTCA TCAAAATCAC TCGCATCAAC CAAACCGTTA TTCATTCGTG
 4101 ATTGCGCCTG AGCGAGACGA AATACGCGAT CGCTGTAAA AGGACAATTA
 4151 CAAACAGGAA TCGAATGCAA CCGGCGCAGG AACACTGCCA GCGCATCAAC
 4201 AATATTTTCA CCTGAATCAG GATATTCTTC TAATACCTGG AATGCTGTTT
 4251 TCCCGGGGAT CGCAGTGGTG AGTAACCATG CATCATCAGG AGTACGGATA
 4301 AAATGCTTGA TGGTCGGAAG AGGCATAAAT TCCGTCAGCC AGTTTAGTCT
 4351 GACCATCTCA TCTGTAACAT CATTGGCAAC GCTACCTTTG CCATGTTTCA
 4401 GAAACAATC TGGCGCATCG GGCTTCCCAT ACAATCGATA GATTGTGCGA
 4451 CCTGATTGCC CGACATTATC GCGAGCCCAT TTATACCCAT ATAAATCAGC
 4501 ATCCATGTTG GAATTTAATC GCGGCCTCGA GCAAGACGTT TCCCGTTGAA
 4551 TATGGCTCAT AACACCCCTT GTATTACTGT TTATGTAAGC AGACAGTTTT
 4601 ATTGTTTCATG ATGATATATT TTTATCTTGT GCAATGTAAC ATCAGAGATT
 4651 TTGAGACACA ACGTGGCTTT CC

Figure 37

